The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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RAILWAY STATISTICS.

[Abridged from a pamphlet, entitled *Railway Reform*—notices of which have appeared in the *Mining Journal*.]

GARNKIRK AND GLASGOW—8 miles: The first of several Acts of Parliament which this company have obtained passed in May, 1826, and the amount of capital 148,106*l.* The railway commences at St. Rollox, near Glasgow, curves over Robroyston Moss, and passes by Clay House, and near Gartcloss; it terminates by a junction with the Monkland and Kirkintilloch line, near to Gartsherrie. There are some heavy cuttings and fine bridges on the line. The traffic in 1832 was 114,144 tons, 63,665 passengers—producing a sum of 6476*l.* 6*s.* 5*d.*; which had increased in 1842 to 274,800 tons, 137,059 passengers—producing 14,929*l.* 1*s.* The total capital expended has been 197,364*l.* 12*s.* The proportion of first to second class passengers in 1842 was one to twenty-one.

GLASGOW, PAISLEY, AND GREENOCK—22½ miles: The opposition which it was known this company would have to undergo from the steam boats on the Clyde made the establishing this railway a bold undertaking; and in the working of the engines a greater economy of steam has been displayed than on any other line. This railway diverges from the Ayrshire and Greenock line six and three-quarter miles from its terminus, then diverges to the right across the Black Cart and Gryfe Waters, intersects Fulwood and Dargavel Mosses, carried close to the south bank of the Clyde, thence to Port Glasgow, terminating at Greenock. The principal cuttings, which are seven, are at Bishopstone Ridge, Cartsburn and Carnegie Hills; and there are about sixty bridges and viaducts. The original estimate for this line was 401,000*l.*, independent of engines; the actual cost was 730,000*l.*, while the expected income has not been realised by one-half. For the year ending Dec. 31, 1841, the number of passengers was 435,650; for the year ending Dec. 31, 1842, after reducing the fares two-thirds, the number reached 833,745—the change having only commenced in May of that year.

GLASGOW, KILMARNOCK, PAISLEY, AND AYR—61½ miles: It is probable this will eventually be the great line of communication on the west from Scotland to the south, there requiring but the formation of a line from Kilmarnock to Lancaster to complete the communication between the two capitals of Scotland and England. The Act was passed in July, 1837; amount of capital and loan 933,300*l.*, since increased to 1,093,650*l.* Leaving the terminus at Tradeston, Glasgow, this line proceeds by the side of the canal for about a mile, then proceeds to Hillington, crosses the river Cart to Elderslie, thence to Johnstone and Kilwinning, where the Ardrossan Railway diverges, then to Irvine, from which place it proceeds to Ayr, on the north side of the river. There are twelve bridges on this line, and one short tunnel. For the year ending June 31, 1841, the number of passengers was 610,404; the fares are moderate. This line has not paid—50*l.* shares are at about 16*l.* discount.

GRAND JUNCTION—78 miles: This company's Act passed in May, 1833; estimated cost 1,040,000*l.*, or 13,000*l.* per mile; the actual cost has more than doubled that sum—the total capital authorised was 1,857,800*l.* Leaving the station in Curzon-street, Birmingham, it passes to the right of Aston, and passing Wolverhampton, proceeds to Stafford and Crewe, where the Chester line diverges, the main line then goes by Hartford and Preston Brook to Warrington, where it joins the Liverpool and Manchester Railway. There are upwards of 150 bridges and two tunnels, one at Wolverhampton 200 yards long. This line is pretty level throughout, and the stations are built with good regard to economy. The number of passengers on this line for the year ending June, 1842, was—first class 263,064, second ditto 151,210, third ditto 60,093. The *forcing* system has been most obnoxiously carried out on this line, by driving many persons of respectability, but whose circumstances would only afford a third class, into a first class conveyance, or to go by some other means; their third class carriages have aptly been termed "pig-boxes," and every difficulty and delay is thrown even in the way of these.

GREAT NORTH OF ENGLAND—45 miles: This line was intended to be carried from Newcastle to York, seventy-five and a half miles, and its intended branches would have amounted to about forty more; the Act was obtained in 1836, and the whole line of 115½ miles was estimated at 1,700,370*l.*—the forty-five miles to Darlington has cost 1,200,000*l.* It commences at Hob Moor, joining the York and North Midland line, thence to Acomb, where the York branch diverges, it then crosses the Ouse, over Pill Moor, passing a mile west of Thirsk, by Castle Hill, crossing the Wiske, and joins the Croft branch of the Stockton and Darlington Railway, which has since been purchased for 20,000*l.* Many works on this line have required heavy expenditure, but great dissatisfaction exists among the shareholders at the excess of outlay over estimates, and the little probability of the originally intended line being finished by the present company. There are about forty-five bridges over this railway, those over the Tees and Ouse are the largest. The number of passengers for the half-year ending December, 1841, was 73,000; for the same period to December, 1842, 80,780.

GREAT WESTERN—118½ miles: This company's Act was passed in 1835; the capital to be raised was 2,500,000*l.*, and by loan 833,333, but the cost in this case exceeded the estimate by three millions sterling; by subsequent Acts, however, the necessary capital was raised. Leaving the London terminus at Paddington, the line passes Hanwell, to Slough, Maidenhead, Twyford, Reading, Steventon, to Swindon, where the Cheltenham line diverges, thence to Wootton Basset, Chippenham, Bath, and Bristol, terminating at the Temple Mead station. Few works ever presented such engineering difficulties as this undertaking; the earth-works are exceedingly heavy; there are a great number of tunnels—one at Box Hill, between Bath and Chippenham, one mile and three-quarters in length; the bridges and viaducts are numerous and expensive—the Wharncliffe viaduct at Hanwell over the valley of the Brent, the bridge over the Thames at Maidenhead, and the viaduct at Bath, are among the heaviest. The line was opened throughout to Bristol in 1841. This company has leased the Cheltenham and Bristol and Exeter lines for some years; an amalgamation of the former with the Great Western has been arranged—the rent has been 1000*l.* per week, and to the Exeter line one farthing per passenger and per ton of goods each per mile. Notwithstanding the immense cost (6,160,000*l.* sterling), the returns have paid 7 per cent. The number of passengers during the last six months of 1842 was 869,444.—The seven feet gauge adopted on this line enables a broader carriage to run; and on no line is the luxury of railway travelling so fully realised as in a first class carriage on this.

HULL AND SELBY—30 miles: This Act was obtained in 1836, empowering the company to raise in shares and loans 533,333*l.* Leaving the Leeds and Selby Railway, it crosses the Ouse by a bridge of a single arch, passing Cliff, Wressle, and Eastrington, crossing the Derwent, and proceeding between North Ferriby and the Humber, reaches the quay of the dock at Hull. This railway, which is nearly level, pays 3½ per cent. on the capital, the weekly receipts being about 2000*l.*; the total number of passengers for the year ending June, 1842, was 226,000.

LANCASTER AND PRESTON—20½ miles: This will form an important link when the chain of communication between the metropolis and Scotland shall be completed. The amount of capital authorised by the Act, obtained in 1837, was 450,000*l.*; estimate for carrying it into effect, 310,000*l.*—and expenses, 90,000*l.* It leaves Lancaster by Scotforth and Galgate, and proceeding west of Claughton Hall, crosses the Preston turnpike-road, and continues in a straight direction to the North Union station in Dock-street, Preston. The line is rented by the canal company at 13,000*l.* per annum; and the number of passengers for the year to June, 1842, was 130,314.

LEEDS AND SELBY—20 miles: The Act passed in May, 1830; the capital then and subsequently authorised was 340,000*l.* The line was opened in 1834, and forms a communication complete from Hull to Liverpool. Some of the works on this line are very heavy, and there are forty bridges, and one tunnel about 600 yards long. On the opening of the York and North Midland, the prospects of this line improved, and the expenditure in 1840 amounted to about one-sixth of the income; the number of passengers was for the year 137,766. The railway is since leased to the York and North Midland for 17,000*l.*, per annum—paying about 5 per cent. to that company.

LEICESTER AND SWANNINGTON—16 miles: This Act was passed in 1830; capital, 175,000*l.* It connects the Ashby coal-field with Leicester, and the principal conveyance is coal. The gross receipts are about 20,000*l.* per annum, and the expenditure 11,000*l.*

LIVERPOOL AND MANCHESTER—30½ miles: This line has been and justly termed "The Grand British Experimental Line"—for there cannot be a doubt that its complete success developed the extensive railway system both in this country and America. The company obtained their Act in May, 1826; the original estimate was 580,000*l.*, while the actual cost exceeded one million and a half. The line commences at Lime-street, and proceeds by a tunnel under the town to Edge Hill, Roby, Rainhill, Sutton, and Newton; here commences the Grand Junction, and a little further on the North Union; it thence proceeds to Kenyon, over Chat Moss and the river Irwell, to the Manchester station. There are three tunnels, the one at Liverpool one mile and a quarter long, and between sixty and seventy bridges and viaducts. The value of these are very high on this line, and the returns pay the shareholders 10 per cent. interest.

IMPROVED PRESSURE GAUGE.—A pressure gauge has been presented to the Institution of Civil Engineers, for their museum, by Alfred King, M.I.C.E.; this gauge, which has been used at the Liverpool Gas-Works for more than two years, for indicating small amounts of pressure, consists of a close cistern containing water, in which is a cylinder having in it a hollow float, connected with a balance-weight, by a fine silken cord, passing over a pulley, on the axis of which is fastened a pointer, one end of which marks the amount of pressure upon a dial, divided in such a manner, that as each division is equal to a column of water of $\frac{1}{10}$th of an inch, a difference equal to $\frac{1}{100}$th, or even $\frac{1}{200}$th of an inch, may be estimated. The action is very simple, the float being elevated by the rising of the water within the cylinder, when the surface is depressed in the cistern by the pressure of the current of gas from the inlet pipe.

BRITISH ASSOCIATION—BRIEF NOTICES OF PROCEEDINGS.

"On a New Instrument for Measuring the Distances of Objects by Sea or Land." By Mr. Leahy.—It was stated to be much more accurate than by the usual means adopted, and could be brought into use much more expeditiously; it is formed by telescopes fixed in the bows of the vessel, the broadside is then brought to face the object, the parties each obtain a view of it, and the angles read off, from which the distance is most accurately ascertained by tables which the author made, and which covered only two sheets of foolscap paper—accurate distances were discovered even at twenty-five miles distance; he considered this means of measuring objects would be useful in enabling shot and shells to be thrown with greater accuracy.—The thanks of the meeting were voted for the invention.

"On the Relative Dimensions of the Stones used in the Formation of Concrete, by which the greatest degree of compactness and consequent strength is obtained from the smallest proportional quantity of lime."—By Mr. Hawkins.—The firmness of concrete depending on the stones being so nearly in contact, as to require only a thin film of lime between stone and stone to bind them together; if too much lime be allowed to remain in one part, it contributes but little to the strength of the whole. The largest stones should be as equal in magnitude as possible, the absolute size being of no moment; he considered that if particular attention were paid to the screening as well as the shingling of the sand, so as to produce that variety of size as to fill nearly all the interstices, producing universal compact of stone and lime; then, that one part of lime to twenty of stone, will form a firmer and harder concrete than when a larger proportion is used, while the usual proportions are one-eighth of lime. The lime should be slaked, and reduced to a state of cream, to which the finest sand is added, then the coarser, and after that the coarsest, and then shingle in the same manner, until every stone is covered with a coating of lime. The concrete thus formed is then thrown into its situation in small quantities and well rammed, which will cause all stones to take their proper positions in proportion to their dimensions, and thus constitute a body much more firm than in the usual way, when the sand and shingle are first mixed, and the lime added afterwards.

"On the Raising of Sunken Vessels." By Sir T. Deane.—He said, some years ago the *Innisfail*, in coming up the *Lee*, struck against an anchor placed where it ought not to have been, and she sunk. A number of methods had been tried unsuccessfully to raise her, when Mr. A. Deane thought of a plan, which was carried into execution. A coffer-dam was made round the vessel, which was pumped out; he then excavated beneath her till the breach was found, which was then covered with plank and cow hide. When the coffer-dam was removed she floated with the tide, and was towed into Passage; the whole operation only took four tides, and at a cost of 400*l.* Had it been necessary to remove her engines, which this plan saved, the cost would have been immensely increased.

Dr. Haines presented some rare and undescribed mountain limestone fossils; also a slab of millstone grit from Kilrush, containing some new and extraordinary casts of a marine annalid; it also exhibited traces of a crustaceous animal.

"On the Elevation of the Scandinavian Coast."—Major Beamish referred to an interesting geological phenomenon which had come to his knowledge in his recent visit to Sweden—viz., the diminution of the waters of the Baltic. Although without a tide, these waters had been subject to variations in depth, which last summer were highly conspicuous. A Swedish officer discovered shoals where none before existed. There was no perceptible change in the North Sea—What, then, became of these waters? The elevation of the Swedish coast was observed at the same time by Mr. Lyell; the Norwegian side was stationary, while the Swedish was ascending.—Mr. Lyell said the cause must be attributed to local action, and it might prove a key to some phenomena in geology; like changes had occurred in the Mediterranean.—Mr. Hopkins said glacial action and change of temperature should be taken into consideration.

"On the Geological Phenomena in the Vicinity of Cork." By Mr. F. Jennings.—He produced proofs that the land in the vicinity had undergone subsidences and elevation, and instanced the finding oyster beds in digging the foundation of the Court House; also at the little island, and at Cove. At Youghall he had discovered trees as they grew *in situ*, and the shrimp fishers walked among the stumps; every storm washed up the remains of ash, oak, elm, and turf. He considered a barrier to have existed previously, as no trees would grow on the open parts exposed to the present sea breezes. A vast deal of sand had also been drawn away, which assists in the encroachment of the sea. At Oyster-haven 20,000 tons had been taken during the year by dredge-boats, at Kinsale 240,000, at Youghall 67,000, and at Waterford 66,000 tons.

Mr. R. Griffiths entered on the recent marine shells found on a granite mountain in Mayo. A peninsula called the Mullett of Erris is situate on the north western coast of the county of Mayo. It is fifteen miles long, breadth at north and south, five, and west, two miles; the principal elevations vary from 330 to 434 feet above the level of the sea. These rocks consist of quartzite, mica slate, metamorphic mica slate passing into gneiss, and hornblende, slate, and granite. On the shore of Portglass, at the north western bank of Termon Hill, there is a fine junction of granite with metamorphic mica slate passing into gneiss, well defined, with no appearance of one rock running into the other. A considerable portion of the surface of the Mullett is covered by a vast accumulation of white siliceous sand, containing a deposit of recent marine shells, and on the surface some land shells. From the general appearances of these hills and valleys, we must conclude that the sand and marine shells once formed the bed of the ocean, and that the whole has been elevated by the protrusion of the granite, and if this is admitted, it is evident that the granite hills have been raised within the period of the recent shells, which consist of the periwinkle, common muscle, and oyster, limpet and escallop.

"On a Remarkable Photographic Process, by which dormant pictures are produced capable of development by the breath, or by keeping in a moist atmosphere." By Sir J. Herschell.—To nitrate of silver, sp. gr. 1·200, add ferro-tartaric acid, sp. gr. 1·023, when a precipitate falls, which is nearly re-dissolved by gentle heat, leaving a black sediment, which being cleared by subsidence, a pale yellow colour is obtained, in which a further addition of the nitrate causes no turbidness; this liquid does not alter by keeping in the dark. Spread on paper, and exposed wet to the sunshine, partially shaded, by degrees the impression (even if now withdrawn from the light's action) developes itself spontaneously, and at length becomes very intense; but if the paper be now dried in the dark, it possesses the singular property of receiving a dormant or invisible picture, to produce which exposure to the rays of the sun (say, from thirty seconds to two minutes) is requisite—it should not be continued too long, for a picture begins to be visibly produced which darkens spontaneously after withdrawal; but if the exposure to the light be discontinued before this effect is produced, an invisible impression is the result—to develope which, it is only necessary to breathe on it, or subject it to aqueous vapour between the leaves of a blotting-paper book, or by holding over warm water.

STAR LIFE ASSURANCE COMPANY.

Continuing our notices of those companies which disseminate the blessings of life assurance to the community, we draw public attention to the above institution, which will be empowered by Act of Parliament at the earliest possible period. Numerous assurance companies have been established, representing more particularly individual professions, trades, &c.—thus, we have the Medical, Law, Farmers', Licensed Victuallers', Church of England, and a host of others, every one of which, since their establishment, have been crowned with the most complete success, and the present one is more immediately devoted to members of the Wesleyan Methodist Societies—one-half, at least, of the directors it appears are to be chosen from that body; and the principles upon which this institution will be conducted will hold out ample security to the assured, an interest of 5 per cent., and one-tenth of the profits to the shareholders, and a guarantee to all of the utmost possible economy in the management of the company's affairs. Another peculiar feature in this company is, that having among the assured a very large number belonging to a religious body, the members of which are disseminated throughout all parts of the country, a knowledge of the character and habits of every person wishing to insure will be acquired, which must give stability to the society; and the probability that most of the assured will be persons of religious and steady habits, thus tending to prolong life, should not be lost sight of. The capital proposed is 100,000*l.*, in shares of 10*l.*, deposit 1 per cent.

THE "AMERICAN EXCAVATOR" IN FRANCE.—A trial of an immense machine for cutting railroads, named by the inventor, a native of the United States, "The Railway Excavator," was made yesterday in the premises of Messrs. Varrall and Co., the engine and machine makers, in the Avenue Trudaine. A large heap of earth and stones was placed at one extremity of the yard, and the machine having been set to work by means of a steam-engine of 10-horse power, forming part of it, the greater part was cut through, and the rubbish thrown aside in a few minutes. One of these machines is, we understand, now in use on the Eastern Counties Railway.—*Galignani.*

ROGERSTONE TIN MANUFACTORY, RISCA.—On Monday night last, some evil-disposed person or persons, supposed to be employed on the works, attempted to destroy an important part of the machinery at Rogerstone Tin Manufactory, the property of Messrs. John Lewis and Co. About half-past nine o'clock at night, the large shears used for cutting the iron was stopped for about twenty minutes and on its being again put in motion, a loud crash was heard; the workmen immediately stopped the water-wheel, and, on examining the machinery, they found that during the temporary cessation, some miscreants had put a piece of wrought-iron, weighing 14 lbs., into the case where the shears work, thus preventing the entire action of the shears, so that when the machinery was set in motion, some part must necessarily give way, and serious consequences might have resulted.—*Silurian.*

THE "PENELOPE" STEAM FRIGATE.

This interesting vessel, which has been the talk and admiration of the naval and scientific world, has left Portsmouth, and gone to Cork to join the squadron there. It will be remembered that this is the frigate on which the experiment has been tried, of cutting in half a large vessel, and lengthening her to any extent required—the history of this proceeding is interesting. It appears that about the year 1782 a frigate called the *Blonde* was captured from the French, and afterwards named the *Hebe* in our service; from her excellent sailing qualities, this vessel obtained a celebrated name for speed, and several frigates of her class were built upon her lines. On the general survey of the navy, in 1815, it was decided that eighty frigates should be the constituted number for the navy, and that they should be of the class, and on the lines, of the *Hebe*. In 1831 there were no less than fifty-four of this class built and building, when, in 1832, Sir Thomas Hardy pointed out to the Admiralty that ships of the *Hebe* class would no longer be efficient, as they were only 18 and 24-pounder frigates of thirty-eight guns, while foreign vessels were 32 and 42-pounder frigates of sixty guns. The *Hebe* class was then ordered to be struck off the list, those building to be altered to larger class, and all in future built to be of the same size. By this arrangement there are now lying in ordinary at Portsmouth thirty-four frigates, useless to the service, and some in good repair, which have cost the country 1,000,000*l.* In 1838, Mr. Edye, the assistant surveyor of the navy, submitted his plan for increasing the size of these vessels, and converting them into war steamers; the proposal was received well, but was considered from year to year, when at last the *Penelope* was selected for the experiment; she was lengthened sixty-three feet, and fitted with engines of 700-horse power, a description of which alteration we gave some weeks since. As soon as the *Penelope* was ready for sea, she was ordered to the Downs to join the squadron of steamers in attendance on her Majesty, to test her capabilities and powers of speed.

At this time she had on board, in addition to her heavy engines, 500 tons of coals—a crew of 330 men, with six months' provisions—and seventy tons of water and twenty-six guns—viz., two pivot guns, 85 cwt. each, ten 42-pounder carronades, two 24-pounders, and two 18-pounder howitzers, and on the main-deck ten 68-pounders of 65 cwt. each, with shot, shells, and engineers' and other stores, exceeding the proposed tonnage by 143 tons, and giving her nine inches more immersion than was intended, which was intentionally done to try the ship at her deepest draught, 19 ft. at the bows, and 20 ft. 3 in. by the stern. Her expenditure of coals, provisions, &c., will lighten her three inches per day; notwithstanding these disadvantages, she made ten and a half and eleven knots, or about thirteen miles per hour, beating the whole of the squadron—the *Victoria and Albert* yacht being the only vessel which had the advantage of her in speed. She answers her helm at the slightest touch, steering easily as a boat, and while the other vessels were rolling in a heavy sea, from 16° to 20°, a glass of wine full to the brim was placed on the gun-room table, and not a drop was spilt. It was considered the bluff formation of her bows would retard her speed, the result, however, shows that their shape answers admirably, and prevents her pitching when pressed in a rough sea by her powerful engines. She is spoken of in the highest terms, and is evidently a most successful experiment, and highly creditable to Mr. Edye. She has an apparatus for disconnecting her engines, and while at Cork will have an opportunity of testing her sailing capabilities, as she carries nearly as much sail as when a sailing frigate. It is understood another frigate is to be altered in the same manner forthwith.

NEW IRON STEAM-SHIP, "FIRE QUEEN."—This fine vessel, built by Messrs. Davenport, Griedrod, and Patwick, of Liverpool, was launched on Tuesday last. The Editor of the *Liverpool Standard* describes her appearance as very fine, and he was particularly pleased with her extraordinary strength of construction—in model she is all that can be desired, being fine at the extremities, and withal so finely moulded in accordance with the most approved principles of naval architecture, that she promises to be very fast and safe, and, at the same time, to carry a fair cargo. Her bottom plates are so thick that, seen on the stocks, she resembles a clincher-built wooden vessel. She is upwards of 500 tons burthen, and will have engines of about 200-horse power. The *Fire Queen* is intended to carry passengers and cargo between Calcutta and Singapore, and will start for the former place as soon as she can be got ready for sea. Her engines are upon the "direct action" principle (the cylinders placed diagonally), and occupying only a small part of the centre of the vessel, leaving the space between them and the sides available to carry a large supply. Her decks, paddle-boxes, cabins, and, in fact, the whole of her woodwork, is of East India teak, a wood which is found to remain unaltered by either heat or water, and, moreover, almost the only one which will resist the attack of the white ant, so destructive in tropical climates. Some idea may be formed of her strength when we state that her bottom plates are ¾ of an inch in thickness, and that no plates of less than ½ of an inch have been used in her at all; in addition to which she will be tied together with diagonal braces throughout her whole length. No vessel yet built is so strong, except the *Great Britain*, at Bristol, of 3000 tons, and its plating is very little more. The cabins are large and airy, and well adapted for the climate, being framed with open jalousies, which will allow a free circulation of air throughout. The private cabins, of which there are twelve aft, and the same number forward, will be fitted with sofas, instead of berths, and there will be a water-closet, &c., to each private cabin. She is divided into six water-tight compartments. The deck beams, paddle beams, bulwarks, keelsons, and engine-bearers, are all of iron. The plates of her hull are overlapped up to her light water mark and butted—so as to present an even surface—all above; and she is double-rivetted throughout. She will be handsomely rigged as a schooner, and will carry two twelve-pounders and two six-pounder guns. The engines are ready to be put on board. They are also built by the same parties, and are, we learn, beautifully finished pieces of machinery. After the launch she will be taken into the Coburg Dock, and afterwards to the north end to receive her engines. We should add that she has a figure-head of "The Fire Queen," bearing a flambeau in one hand, and a handsomely carved stern and quarter galleries.

Another iron steamer was also launched on the same day—the *Nimrod*, of 600 tons burthen, for the City of Cork Company—from the yard of Messrs. Vernon and Co., of the North Shore; this firm has also received orders to build two iron steamers of the same construction as the *Nimrod* from the East India Company, and two accommodation boats of large burthen, for the navigation of the Ganges. Orders, too, are expected for vessels calculated for the Indus, but at present none have been absolutely received.

NEW SAILING VESSEL WITH AUXILIARY STEAM POWER.—The *Margaret*, a new vessel, intended to run between Hull and Liverpool, *vid* the Caledonian Canal, is built on a construction combining steam power with sailing, in a manner very far more economical, and equally effective with the old plan. She is rigged similar to a clipper schooner, with masts, spars, and sails, is of iron throughout, and fitted with water-tight bulkheads. Her two engines are of 14-horse, and she is, in addition to her sailing powers, propelled by Smith's Archimedian screw, when close hauled on the wind or in calms, with small auxiliary steam power working a screw. This is the first vessel ever built for carrying a large cargo on this principle. With only 2-horse power, and a dead weight of 190 tons, and close hauled upon the wind, her speed was six knots per hour; on applying the screw her way was increased to eight knots, and with a fair wind she ran ten knots. There is no doubt that the *Margaret*, with her small additional power, would reduce the voyage to some of the ports of the Baltic to from six to seven days, and Hamburgh about three, with a consumption of no more than 174 lbs. of coal per hour. It is more than problematical that she will, therefore, form an era in building vessels of this class, and she has completely proved the superiority of the Archimedean screw in opposing winds and calms.

FLOATING ALARM WHISTLE TO GIVE MARINERS NOTICE OF SHOALS AND ROCKS.—Among Mr. Hobbs's numerous inventions for the preservation of life and property at sea, is a floating alarm whistle, of such power as to make sufficient noise to be heard a distance of many miles. It is something similar to a huge organ barrel, with a downward projection in the centre, and secured with a check chain to the bottom of the sea, to prevent a heavy sea from upsetting it. The repeated motion of the waves gives a continual seesaw motion, and there is an arrangement of valves, by which, at every depression, the water would be carried through the bottom from the centre to the end of the shaft, driving out the air which had entered at its previous rising up a chimney. The whistle is composed of nine powerful tongues on the accordion principle, and there is an arrangement, by which nine more powerful tongues act, but only in very rough weather, thus increasing the sound during the further raging of the storm. A sounding beacon is also among his valuable inventions, for fixing on rocks, and which always, turning its mouth to the wind, would, with a small current, make a powerful noise.

ANNULAR VALVES.—Mr. R. Hosking, in a communication to the Institution of Civil Engineers, descriptive of annular valves used for pumps for water-works, says—"The annular valve consists of three concentric rings, arranged pyramidally, and resting one upon the other, thereby affording a free passage for the water around the circumference; the upper ring is attached to a shaft, and the two lower ones have internal wings, which serve as guides when the rings are in motion. The chief advantages afforded by these valves are stated to be an increase of water-way and a reduction of concussion, for, as the concussion occasioned by the shutting of pump valves is in proportion to the surface in contact, and the square of the height or distance passed through while in the act of shutting, the greater the number of parts of which the valve is composed, the greater will be the freedom of water-way, and, consequently, the burthen on the engine and the concussion will be proportionately diminished. These valves were first used in two 50-inch pumps at the Waldersea Drainage, near Wisbeach, and they have since been introduced into the Royal Polhenna Consols Mine and the Vauxhall Water-works."

SHEFFIELD AND MANCHESTER RAILWAY.

—At the General Half-yearly Meeting of the Sheffield and Manchester Railway Company, held in the Cutlers' Hall, Sheffield, on Wednesday last,

JOHN PARKER, Esq., in the chair,

The usual preliminary business having been transacted [a report of which will be found in another column], the following reports were presented:—

TO THE SHAREHOLDERS OF THE SHEFFIELD, ASHTON-UNDER-LYNE, AND MANCHESTER RAILWAY, ASSEMBLED AT THE CUTLERS' HALL, IN SHEFFIELD, SEPT. 27.

The directors, in submitting this report to the shareholders, venture for the first time to congratulate them upon the improved and improving prospects of this undertaking. Public opinion has, perhaps, been tardy in doing justice to the merits of this great work; but prejudice having now been overcome, and difficulties surmounted, its early completion and future success are no longer to be regarded as matters of uncertainty. The works upon the whole line, with the exception of a length of [illegible] yards, forming the Sheffield terminus, are now in vigorous operation, having been contracted for at prices considerably below the revised estimate of Mr. Locke; and, in consequence of the depressed state of the iron trade, the directors have been enabled to conclude an agreement for the supply of rails and chairs upon terms so advantageous to the company as to effect a saving upon the Parliamentary estimate of £[illegible]. For a detailed view of the state and progress of the works, the directors must refer the shareholders to the report of their resident engineer—at the same time assuring them that these operations are proceeding with such rapidity as to leave no doubt that the railway will be completed by the end of next year.

The sum of money authorised by the original Act of Parliament to be borrowed on security of the property of the railway has been provided; of this sum £[illegible] was advanced by the Public Works Loan Commissioners, in November last, at 5 per cent.—but the directors having since had an opportunity of raising a like sum at 4½ per cent., have availed themselves of it, and paid off the Government loan. The advanced state of the works and the rapid progress now making towards the completion of the railway will, however, so increase the demands against the company as to require a further advance of capital; to provide this, with the least possible pressure to the shareholders, and with the smallest degree of injury to the property already embarked in this undertaking, the directors have devoted their best consideration to the mode in which the new stock or shares authorised to be created by the Act of Parliament of the last session should be issued; the result, after due discussion and deliberation, has been the adoption of the following scheme, which is now submitted to the judgment of the shareholders, in the hope that it will receive their confirmation and approval:—

NEW STOCK.

To be issued in 16,000 quarter shares, at £25 each—7½ per cent. per annum to be guaranteed for ten years on the amount paid up; £1 per share to be paid on the 1st of November next, £2 on the 1st of February, 1844, £2 on the 1st of May, and £2 on the 1st of August, and the remainder to be called in such manner, at such times, and in such sums, as the directors may appoint; the shares to be offered pro rata to the present proprietors who have paid up all calls to £[illegible] 10s.; if not taken by the proprietors as offered, the directors to have power to dispose of them as they may deem most desirable.

TRAFFIC RECEIPTS.

The receipts on the line from the 1st of January to the 30th of June have been £[illegible] 16s. 4d.; the expenses, including maintenance of permanent way, £6450 3s. 7d.—leaving a balance in favour of the company of £[illegible] 10s. 9d.

PASSENGERS.

There has been a considerable increase in the passenger traffic since the line was opened to Glossop, in December last. The number of passengers conveyed upon that portion of the line opened previously to Christmas, 1842, during six months ending with the 31st of December last, was 156,721; and upon that subsequently opened, during a similar period ending with the 30th of June last, 347,[illegible] passengers—showing an increase during the latter six months of [illegible]. This favourable result may be in a great measure traced to the adoption of the system of low fares, in which the directors feel it will be for the interest of the company to persevere—for, while it has so materially augmented the numbers conveyed, it has neither interfered with the regularity of the trains nor occasioned the slightest accident; and the directors feel quite confident that it will eventually be the means of establishing a more productive passenger traffic on this line than its most sanguine supporters have yet calculated upon. The number of passengers from June 30 to Sept. 22 is increasing in a still greater ratio, amounting to 226,[illegible] for twelve weeks, making the aggregate amount of passengers carried since the opening of 1,[illegible]. The corresponding number for twelve weeks ending Sept. 22, 1842, was only 70,[illegible].

GOODS.

The traffic in goods did not come into operation till the company were secured in the joint occupation of the Manchester station, and has, therefore, only existed to its present limited extent for the last few weeks. They observe, however, with satisfaction, that in spite of accommodation most inadequate, this traffic is gradually increasing; and, although they do not calculate upon its becoming very productive until the arrangements for the reception and delivery of goods shall be more perfect at the different stations, and are most unwilling to incur expenses for temporary purposes, which on the opening of the line will afford no permanent advantage, they have no doubt that it will ultimately justify any calculations as to its amount that have yet been made.

MANCHESTER STATION.

Your directors have it in their power to announce the termination of all differences with the Manchester and Birmingham Company, in the use and occupation of the joint station. The umpire and arbitrators duly appointed for this purpose have fixed the rent payable from this to the other company at £[illegible] per annum, commencing from the 24th of June last. In this award both companies have acquiesced, and the sum of £[illegible] 18s. 7d. for rent and interest due from the Sheffield to the Birmingham Company, up to the 24th of June, has been discharged. A station in the centre of Manchester, so convenient for passengers, and so ample in its accommodation for the most extensive goods' traffic, could only have been obtained on a separate establishment by this company at a very large outlay of your funds; and although the amount of rent is considerable, and for all present purposes more than is required, your directors cannot but feel justified, when they consider the great extent which the merchandise traffic on your line, in conjunction with its branches, must attain. The unrestricted right of traffic, whether in passengers or goods to London, and all quarters which they have secured, and the means within their power of reducing by a third, or thereabouts, the above-mentioned amount of rent, by letting off their arches (one of which is already under lease) to the carriers, as from time to time the increase of the trade may require—in congratulating the proprietors on the result.

TERMINUS AT SHEFFIELD.

With regard to the Sheffield terminus, your directors have not taken any steps for the construction of a permanent station, which irrevocably bind them to any particular situation; nor do they consider that a satisfactory decision can be arrived at, till the modes of communication with the south shall have more nearly approached their final development, than at the present time can be said to be the case.

ASHTON BRANCH.

The directors have to announce that all the land necessary for making a branch to Ashton-under-Lyne and Staley Bridge is purchased, and that the whole of the works are advertised to be let. It is their intention, with the sanction of the proprietors, to solicit an Act of Parliament in the next session for the regulation and government of this addition to their line. The proprietors are aware that a branch to Ashton was part of the original design of incorporation, but was never actually before Parliament. It has, however, become absolutely necessary in the opinion of your directors to recur to the original design, and they trust that in taking upon themselves so serious a responsibility, the shareholders will consider that they have exercised a wise discretion, and will support them in the prompt course they have had recourse to for the preservation of the traffic of those important towns.

BARNSLEY BRANCH.

The branch from Penistone to Barnsley has continued to occupy the attention of your directors. The communications of the latter town with Manchester and the port of Liverpool are most defective; and those which connect it with Hull and the North Midland Railway, are by no means such as to bring the whole amount of its goods traffic upon that line. A survey of the proposed branch was taken by Mr. Locke, as the proprietors are aware, some time ago—Parliamentary notices were given, and plans were duly deposited; but, from causes connected with the great depression of the times, it was deemed prudent, in the session just concluded, to abandon immediate proceedings. With a view to a resumption of this project, an estimate of traffic has been prepared by Mr. [illegible]. It is of a character most encouraging—amounting to £[illegible] per annum—and taken, as your directors believe, on a low calculation. Without taking into account the large traffic from east to west, which may come upon this line, it is the opinion of your directors, from the estimate above-mentioned, and from other inquiries, that a trade from the extensive coal-fields of Silkstone and its neighbourhood into Lancashire, will be created to a very large extent. This, in conjunction with the local trade of Barnsley, will of itself amply justify the project, and procure for it the willing assent of Parliament. In the meantime your directors have appointed a deputation of their own body to confer with a deputation appointed for the like purpose by the North Midland Company; but, from the pressure of recent important affairs on the directors of the last named company, no meeting has yet taken place. Your directors, however, entertain a confident hope, that when the advantages derivable from so increased a traffic, on more than eight miles of the North Midland line, over and above the opportunities afforded them of developing to a larger extent than has hitherto been practicable, the existing Barnsley traffic are fully brought before the North Midland Company, its directors will co-operate with your's in the execution of this branch.

NEW DIRECTOR.

Thomas Townend, Esq., has resigned the office of director, to which he was appointed at the special general meeting in May last, your directors have not yet supplied his place, but it is their intention to do so at an early period.

TO THE CHAIRMAN OF THE DIRECTORS OF THE SHEFFIELD AND MANCHESTER RAILWAY COMPANY.

SIR,—Having been requested to report to you upon the cost of working the gradients on this railway, so far as regards the locomotive power, with a view to ascertain the difference between this and other lines, I beg to make the following remarks:

Our goods engines are capable of carrying [illegible] tons up 1 in 100, at the rate of fifteen miles per hour—the average load, however, is probably not more than [illegible] tons per trip at present; and the cost of locomotive power during the last six months is [illegible] for every mile run, and of this the coke costs [illegible], being about [illegible] lbs. per mile. There is a considerable waste of fuel in the various stoppages on this short distance, so that the [illegible] lbs. per mile may be considered excessive, and will be much reduced when the whole line is opened. It must be observed that this [illegible] lbs. per mile is the average of both trips—viz., up to Glossop and back again. Now, we shall probably be very near the mark if we take the proportion between the up and the down trips as [illegible], which is equal to about [illegible] lbs. per mile on the level. The total rise from Manchester to Glossop is [illegible] feet in 11 miles, which gives an average gradient of 1 in 160. The coke consumed, therefore, in going up this gradient is 45 lbs. per mile, and in descending is 13 lbs. per mile. Now if we take the friction of the waggons at [illegible] lbs. per ton, and that of the engine at [illegible] lb., we obtain for [illegible] tons 667½ lbs. as the friction of the train on the level.

The power required to draw it up 1 in 160 would be ...... 667½ + [illegible] / 160 = [illegible] lbs.

The power required to draw it up 1 in 126 ...... 667½ + [illegible] / 126 = [illegible] lbs.

The power required to draw it up 1 in 120 ...... 667½ + [illegible] / 120 = [illegible] lbs.

The power required to draw it up 1 in 100 ...... 667½ + [illegible] / 100 = [illegible] lbs.

The power required to draw it up 1 in 95 ...... 667½ + [illegible] / 95 = [illegible] lbs.

The quantity of coke consumed will then be in proportion to the power to be exerted, thus:—

up 1 in 160 the power exerted is	1827½ lbs., and coke consumed	45 lbs. per mile.
up 1 in 125	2151½	52 ,,
up 1 in 120	2227½	53·3 ,,
up 1 in 100	2317½	60 ,,
up 1 in 95	[illegible]	62 ,,

In descending all these planes the gravity of the train would be sufficient to keep it in motion, without any steam at all—but, having to keep up the fire, and to use the steam when starting from the various stations, it is found to require, as before stated, 13 lbs. per mile in going down 1 in 160. I have taken the consumption in the inverse ratio of the power exerted in ascending, and it will therefore be as follows:

Descending 1 in 160 .... 13 lbs. per mile.

Descending	1 in 125.. 13 lbs. per mile.		Descending	1 in 100.. 11·2 lbs. per mile.	
,,	1 in 120.. 12·6	,,	,,	1 in 95.. 10·8	,,

From these data we may, therefore, calculate the consumption of fuel from Manchester to Sheffield as follows:—

	Miles.	Average gradient.	lbs.		
Manchester to Glossop	11	1 in 160	45	11	495 lbs.
Glossop to summit	10	1 in 120	53·3	10	533 lbs.
Summit down to Peniston	7	1 in 125	13	7	91 lbs.
Peniston to Sheffield	12	1 in 125	13	12	156 lbs.

Total for 40 miles, 1275 lbs., or 32 lbs. per mile.

Again, from Sheffield to Manchester, we have:—

Sheffield to Peniston	12	1 in 125	52	12	624 lbs.
Peniston to summit	7	1 in 125	52	7	364 lbs.
Summit to Glossop	10	1 in 120	12·6	10	126 lbs.
Glossop to Manchester	11	1 in 160	15	11	165 lbs.

Total, 1279 lbs., or 32 lbs. per mile also.

In the same manner we may ascertain the quantity of fuel requisite to work the Barnsley branch:—

Manchester to Peniston	28 miles, as before			1119 lbs.
Peniston to Barnsley	9	1 in 95	10·8	9 : 97·2

Total for 37 miles, 1216·2 lbs., or 33 lbs. per mile.

Also, from Barnsley to Manchester:—

Barnsley to Peniston	9	1 in 95	62	9 : 558 lbs.
Peniston to Manchester	28 miles, as before			655 lbs.

Total, 1213 lbs., or nearly 33 lbs. per mile also.

The cost of our coke is at present about 18s. 6d. per ton, it therefore appears that the line from Manchester to Sheffield may be worked for—

Cost of coke per mile .... 3·12d.

Cost of wages and repairs, as ascertained by a 6 months' average .. 3·31d.—6·43d.

Similarly, the Barnsley branch will be worked for 6·5d.

This is the cost, without adding anything for depreciation of stock. We have adopted the principle of keeping our engines in a state of excellent repair, so that they are now in almost as good a state as when new, and I have every reason to believe that the depreciation will be very little. The cost of repairs during the last six months has been 1·28d. per mile run. I have stated above that the cost of our coke is about 18s. 6d. per ton; it must, however, be borne in mind, that when the Barnsley branch is made through the Silkstone coal-field, we shall obtain the supply of coke at about 12s. per ton, or one-third cheaper than at present. This will, of course, make a corresponding reduction in the expense of the locomotive power. It appears, therefore, that the expense of working gradients like ours is not so great as many have imagined, and that the extra power required in ascending is in a great degree compensated in descending the plane. The maximum load which our present engines draw up 1 in 100 is 75 tons. We may, however, find it more economical, when our line is opened throughout, and we have a greater length to run, to increase the size of our goods' engines, so as to enable them to take a greater load.

In a similar manner to the foregoing calculation, we may estimate the proportionate cost of working the locomotive power of any other line—take, for instance, that from Manchester to Normanton, here we have

15 miles to the summit, average inclination 1 in 270.

34 miles to Normanton, ditto 1 in 411.

Coke burnt per mile.

For 1 in 270, power exerted will be 1420½ lbs. .. Upward, 35 lbs.—Downward, 19½ lbs.

For 1 in 411, power exerted will be 1246½ lbs. .. ,, 30 lbs.— ,, 22½ lbs.

Therefore, from Manchester to Normanton—

Rise, 1 in 270	15 miles	35 lbs.	525 lbs.
Fall, 1 in 411	34 miles	22½ lbs.	772½ lbs.

Total for the 49 miles, 1322½ lbs., or 26·6 lbs. per mile.

Also, from Normanton to Manchester—

Rise, 1 in 411	34 miles	30 lbs.	1020 lbs.
Fall, 1 in 270	15 miles	19½ lbs.	292 lbs.

Total, 1322 lbs., or 26·6 lbs. per mile, as the other.

The price, therefore, for coke will be .... 2·60d.

And for wages and repairs .... 3·31d.—5·91d. per mile.

Or the cost of working the Barnsley line will be to that of working the Manchester and Normanton line in the proportion of 6·50d. to 5·91d. per mile. It must be observed, however, that any diminution in the price of coke, owing to the more favourable district for that material that different lines may traverse, will tell greatly in the cost of the locomotive power.

I am, Sir, your obedient servant,

ALFRED S. JEE.

TO THE DIRECTORS OF THE SHEFFIELD AND MANCHESTER RAILWAY COMPANY.

GENTLEMEN,—In reporting to you upon the progress of the works on the line, it affords me great pleasure to state, that very considerable energy has been displayed since the letting of the various contracts between Glossop and Sheffield, and the whole of them are being carried on with great activity. The portion of the line now completed from Manchester to Glossop has been maintained in a very efficient state of repair, and the whole of our engines and carriages continue in good working condition.

No. 6, or DINTING VALE VIADUCT CONTRACT.

This work is proceeding at a steady rate. All the piers on the western side are finished, and four of the smaller arches are commenced. The large piers for supporting the five timber arches are in a forward state. The contractors are getting the timber on to the ground, and tanks have been erected for its immersion in a preservative solution.

No. 7, or LONGDENDALE CONTRACT.

About 250,000 cubic yards of excavation have been moved on this contract during the last six months. The masonry is also in a forward state; the three-arched bridge at Hadfield, and several occupation bridges, have been completed, as well as most of the culverts. The two Skew bridges, near Woodhead, are nearly finished. About half a mile of the permanent rails have been laid, and a considerable length is now ready for receiving them. The contractors are also proceeding with the trimming of the slopes, and putting in the side walls.

SUMMIT TUNNEL.—CONTRACTS Nos. 8 and 9.

The quantity of water at No. 1 shaft prevented the driving of the driftways from the bottom, and the power of the engine being found insufficient to pump it out, an additional one has been put down, and the water is now completely overcome.—The length of driftways still required to be driven is about [illegible] yards, which will henceforth proceed from three faces; and, as I stated in my last report, the widening out of the tunnel will be carried on without interfering with those drifts, and I do not anticipate any delay in the ultimate completion of the work on this account. The western portion of the tunnel, being a length of [illegible] yards, has been let to Mr. Richard Hattersley (the contractor for the Etherow Viaduct on this railway), to be completed by the 31st December, 1844, at the same time as the eastern portion.

The following is a detailed statement of the amount expended by the company previous to the contracts being let:—

Engines, pumping apparatus, &c.	£13,031 0 1
Cottages, workshops, and roads	6,[illegible] 13 7
Coal, ropes, and wages	17,[illegible] 5 5
Timber, temporary rails, waggons, and other materials	6,[illegible] 13 7
Sinking shafts	11,[illegible] 9 6
Driving the driftways	35,[illegible] 9 2
Total	£90,[illegible] 19 10

Since the contracts were let, the widening out of the tunnel, and the lining with masonry of those parts requiring it, have been vigorously proceeded with, and a total length of about 1000 yards has been completed.

No. 10, or CARLCOATS CONTRACT.

This contract, in length about 2½ miles, has been let to Mr. Nicholson; he is proceeding with the excavations and embankments. Several culverts have been built, and the bridges at Dunford and Hazelhead have been commenced.

No. 11, or PENISTON CONTRACT.

This contract has been let to Messrs. Miller and Blackie, and is five miles in length. The various excavations and embankments are all commenced, and are proceeding rapidly. The six feet culvert at Hoylands, and several smaller ones, have been built. The Barnsley turnpike road bridge has been commenced, and that for carrying the railway over the turnpike road, at Peniston, is ready for the arch. Nearly the whole of the fencing has been completed on this contract.

No. 12, or WORTLEY CONTRACT.

This contract, in length about 5½ miles, and one of the heaviest on the line, has been let to the Messrs. Crawshaw, who already have a large number of men employed upon it. Preparations are making for putting in the foundation of the viaduct for carrying the railway over the River Don, at [illegible], and the contractors have commenced upon the short tunnel through the hill, at Oxspring, and are sinking two shafts, in order to give greater facility in working it. The cuttings at each end of the tunnel are in a forward state. About 15,000 cubic yards have been removed out of the deep cutting, at Wortley Forge and the skew bridge, over the road near this point, has been completed. The heavy embankment, near the chemical works, in Wharncliffe Wood, is commenced at each end, and several of the smaller bridges and culverts have been put in.

No. 13, or WHARNCLIFFE CONTRACT.

Is about five miles in length, and in the hands of Messrs. Miller and Blackie. The whole of the timber has been cleared away from the line through Wharncliffe Wood, and most of the cuttings and embankments are in full operation. Nearly all the culverts are finished. Two bridges in the Wood are being proceeded with, and those at Limestone Cottage and at Wadsley bridge are ready for the arches. A considerable portion of this contract will be ready for receiving the permanent road in the course of a short time.

No. 14, or OLD PARK WOOD CONTRACT.

The viaduct at Ward's-end will be ready for the centres in a few days—all the piers being up to the springing level. The three-arched bridge across the cutting at Ward's-end has been completed, and also one in Hurry Spring Wood. The under bridge at Neepsend, for the accommodation of the Duke of Norfolk, is finished.—The earthwork on this contract has been proceeding steadily, the object being to afford as much employment as possible to the people in the neighbourhood of Sheffield, who have been engaged in considerable numbers upon it. The length of [illegible] yards between this last contract and the Sheffield terminus, will immediately be got ready for letting. The branch line to Ashton and Stalybridge has been staked out, and the sections, drawings, and specifications will shortly be ready, so that those works may be let immediately.

In conclusion, I can state with confidence, from the favourable manner in which all the contracts have been let, that the cost of the works will not exceed the estimate; and, from the vigorous manner in which they are now proceeding, there is no doubt of the whole line being completed within the specified time.

I am, Gentlemen, your obedient servant,

Dinting Vale, Sept. 26. ALFRED S. JEE.

NOTICES TO CORRESPONDENTS.

The MINING JOURNAL *is regularly published about Two o'clock on Saturday afternoon, at the office, No. 26, FLEET-STREET, where it can always be obtained and there is no cause for irregularity in its supply, in town, other than neglect on the part of the agent through whom it is ordered; but, as respects its transmission to country subscribers, the blame is shared with the Post-office authorities.*

PRICES OF METALS.—Our list of prices is made up from authentic data, at the latest possible time, and presents the *actual price* then attainable for each article quoted. The difference noticed by "R. W." (Dublin) must arise from the owners of stocks, finding an increased demand to exist, setting a higher value than could be effected in previous sales, and which they now hope to obtain.

"A Subscriber" (Glasgow).—A description of Beale's Rotary Engine appeared in the *Mining Journal* on the 17th June last.

"An Old Subscriber," whose letter is dated 15th September, but received only on the 23d inst., shall receive a communication by post on the subject of his inquiry as to the patent to which he makes reference.

"A. W." (Durham).—Address Mr. J. Welsh, of Houghton-le-Spring, who will furnish the particulars required privately; or, if preferred, they shall appear through our columns.

We know of few acts more reprehensible than designedly attributing improper motives to the actions of a public man, for the purpose of injuring his reputation, or of raising ideas in the minds of the working population that the enjoyments or luxuries of employers are only procurable from the oppression of the employed. What has the circumstance alluded to by "A Constant Reader" (Brighton), to do with the depressed state of the iron trade, or the strike of the colliers?—We are truly sorry such a letter should have emanated from a man in whom we thought we could, and indeed have, placed confidence—"M." (Potteries), and also "A Constant Reader" (Brighton) will understand us.

"Sundry" (Junior United Service Club) should be more explicit. If he has a direct charge to make, and puts it in a form suitable for publication, it shall appear in the Journal.

"M. W." (Boston).—A letter, re-directed from one place to another, is legally liable to additional postage.

"A Constant Reader" (Hull) should apply to Messrs. R. B. Watson and Co., of Leeds, who will readily afford the information required.

"T. N." (Redruth).—See the article on the Thames Tunnel, in last week's Journal; also the account of the last meeting, at which every particular was fully explained.

The Report of the Institute of France on M. St. Clair Duport's admirable work "On the Production of the Precious Metals in Mexico," shall appear in our next, and will be followed by copious abstracts from the work itself as frequently as opportunity offers.

HYDRAULIC RAILWAY.—"An Enquirer" cannot do better than peruse Mr. Shuttleworth's pamphlet "On Hydraulic Propulsion," which contains a vast deal of information on the subject.—A copy can be had of Mr. Weale, of Holborn, or will be forwarded direct from our office, on receipt of a Post-office order for 2s. 6d.

"T. B." (Lynn).—The subject has been already noticed. Any new facts we shall be glad to receive, and, if of sufficient importance, they shall be inserted.

"A Shareholder" (city).—We cannot publish unauthenticated rumours reflecting on the characters of individuals. The letter should have been addressed to the office of the company.

THE COPPER TRADE.—We insert, in our present Number, the letter of "R. W.," received last week. As purporting to be a reply to "H. E.," we have considered it right to give it insertion, and, at the same time, to refer back to "H. E." the closing paragraphs of his letter, so that he may at once reply to the two communications of our correspondent. It is necessary to say this, to account for the absence of the conclusion of "H. E.'s" reply, which should have been inserted in our last, but for the reasons already assigned.

ALD. THOMAS WOOD.—We have received the letter of our correspondent, dated Greenhithe. He much mistakes us, if he supposes that we would lend our columns to anything like an attack on Mr. Ald. T. Wood's private character. We know him only in his official capacity as an alderman and magistrate, and, further, as a candidate for the office of Lord Mayor, and must decline lending our columns to any such abuse as that contained in our correspondent's letter. Admitted that it is true, what has this to do with the learned Alderman's civic position?

MINES IN IRELAND.—We are compelled, from press of matter at a late hour, to defer our notice until next week.

"W." (Liskeard), and "J. M." (Whitby), in our next.

More extensive premises than those lately occupied being found necessary, the establishment of the *Mining Journal* is REMOVED TO 26, FLEET-STREET (opposite St. Dunstan's Church).

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, SEPTEMBER 30, 1843.

*** Parties desirous of ordering the *Mining Journal*, can do so, either direct to the office, or through any newsvendor or bookseller in town or country. Notices of irregularity in its delivery are requested to be forwarded to the office, where every endeavour will be made to rectify the cause of complaint.

Yesterday was the day on which the livery of the city of London were called upon to determine by their choice the Lord Mayor for the ensuing year—Mr. Alderman THOMAS (Talacre) WOOD being the senior alderman. Our last week's Journal put the livery in possession of certain facts connected with the Talacre Coal and Iron Company, of which the learned candidate for municipal honours was Purchaser, Vendor, Trustee, Chairman, Director, and Solicitor; and the decision of the livery is only such as we had a right to expect—the rejection of Ald. T. WOOD, and the nomination of Ald. MAGNAY (next in rotation) and the LORD MAYOR.

It is only twelve months since that the livery, or Common Hall assembled, elected Ald. THOS. WOOD as one of the two aldermen required to be returned to the Court of Aldermen. But on the present occasion they repudiated him; and the only course left open to him was, that of appealing to the livery. This he did; and we were glad to find such boldness evinced on his part—but, alas! ere ten minutes had elapsed after the election had commenced, the LORD MAYOR came forward and stated to the livery, that he was perfectly satisfied with a twelve months' office, and that Ald. WOOD wished to retire—so that the livery should not be put to the trouble of voting. Alderman THOMAS WOOD — who had previously stated that the Court of Aldermen would not return him, and hence that it was his intention to appeal to the livery—afterwards "*cried peccavi*," and wished to be relieved from the expenses which his injudicious friends would impose upon him, as attending the election. However, Mr. Sheriff MUSGROVE stated, that the learned Alderman having demanded a poll, there was only one course to pursue, and he therefore called upon the livery to exercise their franchise in recording their votes for one or other of

the candidates. Such, in brief, are the proceedings of yesterday; the polling lasted for an hour, and the votes were:—For Alderman MAGNAY, 207; for Alderman THOMAS WOOD, 43; and for the LORD MAYOR, 24. This, however, forms no criterion, as the livery number from 13,000 to 14,000—therefore, it cannot yet be said that Ald. T. WOOD has been repudiated by his brother liverymen.

It may be well here to introduce the copy of a placard, which Mr. Alderman THOMAS WOOD (under the advice, we presume, of his legal friend—the voluntary Clerk of Deptford New Town) has thought proper to post in the City, and on which we "have determined to make an appeal to the laws of my (our) country":—

TO THE WORTHY AND INDEPENDENT LIVERY OF LONDON.

GENTLEMEN,—The MINING JOURNAL has resorted to its usual course of publishing an *atrocious libel* on me, at a time when it cannot be answered or restrained. Hitherto, as advised by my friends, I have abstained from noticing its publications; I have now, however, determined to make an APPEAL TO THE LAWS OF MY COUNTRY, and will avail myself of the earliest opportunity which the forms of the courts allow to take such proceedings as I may be advised are most suitable—the papers being now before counsel for that purpose. In the mean time, I earnestly solicit the public not to be influenced by the false and calumnious statements put forth. I have the honour to remain, Gentlemen,

Your most obedient servant, THOMAS WOOD.

Corbet-court, Sept. 28.

It need hardly be observed, to those who have known us long, that a prompt reply was afforded to the learned Alderman—for he is not the only one we have had to deal with. The West Cork, and JOSEPH PIKE—the "multifarious concerns," and WILLIAM MILLET THOMAS—*cum multis aliis*—afford sufficient evidence that we are neither to be deterred by threats—nor are we likely to be "humbugged" by kindnesses, although even Talacre coals may be employed to give us a warm reception at the Mansion House.

Let, then, the following reply speak for itself:—

TO THE LIVERY OF THE CITY OF LONDON.

GENTLEMEN,—A printed bill, purporting to be signed by Alderman THOMAS WOOD, having been posted, declaring that certain statements inserted in the MINING JOURNAL of the 23rd inst. are "*an atrocious libel*," it is only due to my brother liverymen for their guidance, as well as to myself, to state, that I am prepared to substantiate every charge so preferred—and, further, to prove that Alderman THOMAS WOOD is unworthy of your suffrages. I am, Gentlemen,

Your obedient servant, HENRY ENGLISH.

Mining Journal Office, 26, Fleet-street, Sept. 29.

It is not our province to deal with municipal elections, and only is it the connection of Ald. THOMAS WOOD with the Talacre Coal and Iron Company, that has induced us thus to travel out of our prescribed path, and which we deem the more necessary, from the circumstance of his placard ascribing to us the publication of "an atrocious libel"—libel it may be, but that has yet to be determined. But will Alderman THOMAS WOOD say that the charges preferred are false? We defy him once again to do so; and if he "doff" not his gown, we would refer him to words which, if he reads Shakspeare, he will find in "King John," and which he may well apply to himself. We must, however, be cautious, even as to quotations. Now one word or two as to the question and its supporters—that is, the claim of Ald. T. WOOD, and the advocates who put themselves forward. We have first the learned Alderman. As it is to be presumed that the Lord Mayor of the city of London should be a man of character, we call on Ald. T. WOOD to say whether he is ready to substantiate his assertion of yesterday—viz., that he had refuted all charges; but he knew too well the "damning" proof which could have been adduced, and, therefore, prudently, did not refer to the MINING JOURNAL.

One word as to those who appeared to us to take the most prominent part in conducting the election. Mr. Alderman THOMAS WOOD, as the senior alderman, claims our first attention. The learned Alderman was supported by his *attorney*, Mr. D. WIRE, Mr. ex-Deputy WESTON, Mr. COATES, and Mr. RICHARD TAYLOR—the latter, however, very prudently abstaining from saying a word in favour of the learned Alderman, while he very properly, as we consider, commented on the conduct of the Court of Aldermen, which as we have before stated is, in our opinion, highly reprehensible. And here we would ask—Where was Mr. JOHN GOODAL LAY? This gentleman, we were given to understand, took an active part in favour of the learned Alderman, and yet he was not on the hustings. We should hope that, finding the company with which he was associated, he, as an honourable man, retired from the field—if so much credit is due to him. With regard to Ald. MAGNAY (for it did not appear to us that the Lord Mayor took any active part), it is only due to Mr. GEORGE WALLIS, as well as to Mr. CROUCHER, the only parties we recognised in the field, to say that they did their duty. As relates to the former, we found him in every quarter, with true *Conservative* principles, upholding the character of the city of London, while the livery did their duty in *rejecting* ALDERMAN THOMAS WOOD AS LORD MAYOR.

Since writing the foregoing, Ald. THOMAS WOOD, who declared it to be his determination to afford to the livery the opportunity of recording their votes, has published the following letter:—

TO THE WORTHY AND INDEPENDENT LIVERY OF LONDON.

GENTLEMEN,—Although greatly gratified by the show of hands in my behalf to-day, I find that the LORD MAYOR does not wish to serve the office the ensuing year, and, as he has declared he does not require any votes to be given for him, I do not think it necessary to protract the contest, and will not therefore trouble my friends to come up in my behalf on this occasion—being fully convinced, that were you to return me by the largest possible majority, the Court of Aldermen would select Ald. MAGNAY, thereby rendering your votes for me useless. With the utmost gratitude for the strong spontaneous expression of your feeling in my favour this day in a common hall, which from numbers was almost without precedent, and trusting your support on a future occasion, I am, gentlemen, your obedient servant.

Corbet-court, Gracechurch-street, Sept. 29. THOMAS WOOD.

We have only to state, that Ald. THOS. WOOD, in this instance, as in others, will be found wanting of corroborative proof of the truth of his assertions. He says, the "strong spontaneous expression" in his favour, "which, from numbers, was almost without precedent," will induce him to solicit the support of the livery "on a future occasion." Now, it is notorious, that the show of hands for Alderman MAGNAY was as four to one, and although the LORD MAYOR and Mr. Ald. T. WOOD were much on a par, being as one to four, the Sheriffs, we have reason to believe, hesitated who they should return—but very properly, being placed in a dilemma, out of two evils they chose the least.

Our contemporary, the *West Briton*, has thought fit to insert an article in the last week's publication, attacking us for the observations we have made with reference to the smelters, and has, doubtless, advisedly adopted, if not the words, at least the arguments, of that much *injured* body, while he claims to himself the expression of the opinion of the adventurers and working miners. That we have ever pursued one course—that of upholding the miner in opposition to the smelter is pretty well known; and as our columns are never lent to the advocacy of any particular interest, while the remarks we make are not the result of hasty conclusion, we are fully prepared to meet our contemporary on the point at issue, if he be able to enter the arena of discussion. As our correspondents, "R. W." and "H. E." are in the field, and our columns are preoccupied, we must needs give our contemporary a week's respite.

DOLAU MINE.—On Thursday afternoon, the 21st inst., the workmen employed in this mine, in which Matthew Moyle, Esq., of Chacewater, is the principal adventurer, were, with their wives, regaled with tea and cake at Mr. Moyle's expense. The party, numbering more than a hundred, assembled in the gardens of Captain S. Robins, near Rustic Rock, and the day was most pleasantly passed by all present. Addresses suitable to the occasion were delivered by two of the miners (John Rowe, of Chacewater, and S. Symons, of St. Austell), after which Mrs. Robins presented Mr. Moyle's donation of cake to the labourers' wives, to carry home to their children. The party then left, after having offered up a fervent prayer in behalf of their kind and estimable benefactor, who has ever been solicitous for the welfare of all in his employ.—*West Briton.*

ORIGINAL CORRESPONDENCE.

THE COPPER TRADE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—I hope that your correspondent "H. E." has enjoyed his "tilt," although he has not succeeded in his intention to "unhorse" me. As far as I am concerned, it has been a perfectly harmless affair—and how should it be otherwise? The shaft of his lance was but a reed, and the head of it was formed of the prickle of a briar, or something of the kind, but less capable of resistance. I almost thought, at first, that he had borrowed your's for the purpose, he having been so much pleased with the use you had made of it; but, on a closer examination, I found it in some instances more highly wrought—or, as the learned would say, more poetical in its carving; nevertheless, it cannot be denied that the use he made of it was a mere repetition of the modes of attack and defence you had previously adopted, which proved to a demonstration that you were both taught in the same school. It strikes me (I may be wrong) that "H. E." would be acting more wisely, and would gain more credit to himself, if, instead of complimenting me upon being a good tactician, he would candidly own, that the superior "tactics" which appear on my side of the question were entirely the result of the weakness of the side he advocates. But such is the perversity of human nature, and such are the consequences of it, that people never appear disposed to acknowledge themselves to be in the wrong—and will even attribute to their opponents powers and abilities which they never possessed, in order to shelter their own defects, and to persuade themselves as well as others that they are right.

When Buonaparte fought the battle of Waterloo, and found, hour after hour, that the issue was not decided in his favour, he consoled himself and those around him by declaring, that the English had been beaten some hours, but they did not know it—thus giving credit to a beaten army for being able to keep the field against a victorious one, and without showing the least symptom of a disposition to run away. The Duke was a "good tactician." But he (Buonaparte) must have been "most considerably stultified" when his soldiers came running towards him in great confusion, and communicated to him, that the beaten army of the English had taught them by facts (the bayonet) that no such thing had taken place as he had fondly anticipated.

Let "H. E." appeal to facts, and not satisfy himself by mere assertion, or expect that others will be satisfied thereby; let him show in what way the experience we have had during the last eighteen months in the copper trade has confirmed the views taken by himself and some others as to the consequences of the tariff, and I am confident that he will find those facts an irresistible to his conclusions as the French found the British bayonets to be to Buonaparte's conclusions. No question can arise as to the fact, that copper is selling at a lower price now than it was selling at eighteen months ago; but this fact alone proves nothing as to the effect of the new tariff. If "H.E." will look out for a good piece of lance wood with which to make his weapon, and will mount a horse fit to ride, and will then throw down his gauntlet as an invitation to battle upon the real facts of the case, I shall be happy to meet him, but I cannot consent to fight Don Quixote's battles over again.

I am at a loss to conceive how "H. E." arrived at the conclusion, that "I appeared very desirous of evading a subject which I, doubtless, feel sensitive upon"—that is, "the advocacy I displayed in support of the smelter at the time of the alteration in the tariff." In the first place, permit me to deny, most positively, that I have ever been influenced, in anything I have ever said, by a feeling in favour of the smelters. I have never had any intercourse with them upon the subject, nor have I ever exchanged ten words with any individual connected with them respecting it, either directly or indirectly, nor am I aware that any individual smelter is acquainted with the name of the writer, except it be by mere guess. If what I have said has appeared to advocate their cause, it has never been dictated by any personal consideration in their favour, either individually or as a body; what I have said has had a reference to the principles involved in the questions at issue, and not to any person who may happen to be benefitted by them. I make these remarks because of the observations which both "H. E." and yourself have made, as to my being the advocate of the smelters, which I again deny, as far, at least, as personal feeling may be concerned.

But to return to "H. E.'s" opinion of my being desirous of evading the subject of the tariff. "H. E." tells us that he had perused with much interest and attention my letter; if so, he must have read the following sentence:—"I must, however, remove the, perhaps, pleasing impression on your mind, of my being ashamed to defend all that I may, at any time, have written upon the subject of the tariff; be assured that you are greatly mistaken, which you will find to be the case if you are disposed to take up the cudgels against it, but they must be made of different materials from any you have hitherto handled in the cause." I beg to extend this invitation to "H. E.," and, if he is disposed to accept it, I shall not be found wanting.

"H. E." does not quote me quite in fairness, when he states that I considered that ticketings "*cannot* be destructive of the mining interest, forsooth, because they have existed for nearly a century." Will "H. E." excuse me if I deny that I said any such thing? What I did say was, "it does appear strange, after they had existed for nearly a century, it should remain to this period to be discovered that they are so destructive to the mining interest"—not that they *cannot* be destructive, &c.; but "H. E." added—"I hardly like to trust my pen in offering a comment," and yet he could not avoid it, for he was so full of building new houses, instead of repairing old ones (it may be he had conceived a notion about building castles in the air), that he must needs put the whole scheme upon paper, for the purpose of showing its "pristine" value and beauty. Now, I cannot compliment him as being a good "tactician" in this instance, as nothing can lower a man's arguments so much as a bad foundation, and there cannot be a much worse foundation than misrepresentation. I cannot object to "H. E." or any other person commenting upon what I may publish to the world, but I feel that I have a right to complain when I am misquoted for the mere purpose of raising an argument; however, "H. E." is quite welcome to all the benefit he may derive from it.

"H. E." objects to my remarks, in reply to your designating the present system of smelting a "monopoly," and he denies that there is any such thing as an open market in the purchase of ores at the ticketings. He then repeats the arguments that you have more than once made use of in support of his assertions; first, the miner is in the hands of the smelters; next, he cannot withdraw his ores, but must needs take the "bid;" and, next, that the "bid" must depend upon the understanding which exists between the smelters, as constantly displayed in the ticketing papers. Now, all this was over and over again asserted at the time that the Miners' Smelting Company was attempted to be formed, and as often replied to it; but we will just run through them again. First, the miner is in the hands of the smelters. The ticketings are an open market, and any person, or any company, may go into it and purchase ores, provided the miners have confidence in their security, and will accept their offers. The miners send their ores to a market in which they know that they are offered without reserve; they, therefore, do this with their eyes open. This being the case, they, of course, cannot withdraw them, but they may withhold them from the market. "H. E." would, perhaps, ask, what are they to do with them? where could they sell them? I ask a similar question—where would they sell them, provided they would be allowed to withdraw them? I cannot conceive that there would be any difference to the miner, whether he withheld his ores from the market, or withdrew them after they were offered for sale. But the bid depends upon the understanding which exists between the smelters; that is, they agree between themselves which of the companies shall purchase such parcel of ores, and what price shall be given for it. Now, although, we are referred to the ticketing papers in proof of this assertion, I defy any person to show by those papers that such a combination really does exist. The last sale of ores that took place on the 7th inst., there were five parcels of ores from Botallack, all purchased by one company; two of them at an excess of 11*s.* and 11*s.* 6*d.* per ton, one at 3*s.*, one at 3*s.* 6*d.*, and the other at 2*s.* per ton. Will any person say that this could have been the result of an understanding amongst the smelters? There are other instances of parcels having been purchased at high excesses, at the same ticketing, and, indeed, there is scarcely a sale that does not show something of the kind.

"H. E." further objects to my explanation of a monopoly, and calls it a jest; and, yet, in the very next sentence, he confirms my view of it. I said that a monopoly was felt to be an injury to the consumer by keeping the price up. This "H. E." contends is a joke. He then gives us a definition of what he considers to be the monopoly which does exist, and which he says "is that of the middle man—the smelter," and he "being the copper merchant, he has a certain power in his hands to command prices"—*of whom?* "He is the middle man"—between whom? Is it not between the miner and the consumer? Is not this a positive confirmation of my "jest." I referred to the Miners' Smelting Company having failed in the attempt to break up this monopoly, and "H. E." tells us that my "innuendo" was most flattering. I made use of no "innuendo," but confined myself to positive facts. He talks about "mealinesses;" but this company appears to be a very sore subject to him. Can he boldly and fearlessly deny having had any connection with, or ever having been an advocate in favour of it?

"H. E." informs us, that "a company, with a large capital and honest purpose, undertakes to represent the miners' interest, and, not meeting with support, your correspondent would ask them to sacrifice their capital, and retire from the field, so that his friends (the smelters) might have the ball at their feet." Where did he read anything at all capable of such a construction? I know no wish to drive them out of the trade; on the contrary, I am glad to see them become purchasers of ores in the open market. But let us for a moment consider their original intentions, without insinuating that their purpose was or was not an honest one. The company proposed to become the sole smelters for the whole of the mining interest, and, as a matter of course, to drive all the other smelters out of the market; the company was to receive the ores into their works, and be responsible for a certain quantity of copper, according to the assay of each parcel; they were to be paid so much per ton for smelting those ores, and after the fine copper was produced, they were to sell it, and then account to the miner for the actual proceeds, after deducting their commission for selling and other charges consequent thereupon. In order to keep up the price, there being no other competitor in the market, the copper was to be deposited in their warehouse, and the merchant or consumer was to go there to make his purchases, and at such a price as was demanded for it—"There is my copper, and so and so is my price; if you do not like to purchase on those terms, you can leave it."

This scheme failed through the "compact which existed between the smelters," and "the apathy displayed by the miners themselves." Why the smelters entered into such a "compact" it is not for me to attempt an explanation—because, in the first place, I do not deem it to be necessary; and, in the next place, were I to attempt it, I should be again called their advocate. Ask them—they can tell you. As it regards the miners, if they were so indifferent and so apathetic to the disinterested kindness of their friends, I can only say that they have no reason for complaining of the consequences of it; but why the smelters should be made responsible for the conduct of the miners I cannot conceive. I confess to having joined in this apathy, and cannot at present acknowledge that I think myself wrong; but, in doing so, I cannot conceive that I asked them to sacrifice their capital, because I always advocated their going into the market and purchasing their ores publicly, as the other smelters did. This, I presume, cannot be deemed a wish that they should withdraw, and sacrifice their capital. They have, however, adopted this mode of purchasing their ores; and if it be true that the smelters are purchasing the ores below their value, the larger quantity that each may purchase the larger the profit to be gained by it. The wish that the company in question should purchase more largely under these circumstances can never be deemed to be a desire that they should sacrifice their capital; but if such purchases should lead to an increased loss, the same consequences must be felt by the other smelters, and, if this be really the case, what becomes of the charge of monopoly in the ore market? But, permit me to ask "H. E." whether the present standard in the ore market is or is not equivalent to the present price of copper?

"H. E." says that the smelter has a certain power in his hand to command prices, except the supply should exceed the demand. This is a very fatal exception to all his arguments, and, if he attempts to "tilt" with this exception, he will find his lances will be shivered to atoms, although they be made of adamant. Upon this prices must mainly depend, whether the copper be sold as it now is, or in the warehouse of any one company.

I did intend to make some remarks upon the price of tin, in reply to your observations, but I have already extended this letter to too great a length. I must take another opportunity to do so. Before I conclude, allow me to ask one or two plain and simple questions, which may be deemed apposite to the subject before us. I believe that it will not be denied, that there is a great number of persons, in different ranks in life, possessing talent, acuteness, aptness in business, who understand the system of buying and selling—men above all suspicion as it respects their integrity and honourable conduct, who are alive to their own interests, and prepared to avail themselves of any fair and honourable means that may offer for promoting their own welfare, and increasing their own profits. I say that there is a very large number of such persons engaged as adventurers in working and in the management of the mines in Cornwall. Are we, then, to understand, that they are so thoroughly blind to the evils of the present system adopted in the disposal of their produce, and to the advantages which might be capable of arising out of the establishment of the Miners' Smelting Company, as to have opposed the latter through mere ignorance? Are we to take it for granted, that "H. E.," and the party he represents, are the only persons capable of judging between right and wrong upon this question? Such a doctrine may be established in Bedlam, but, I think, no place else. R. W.

London, September 21.

[As we have, for reasons assigned in our "Notices to Correspondents," deterred the insertion of the remainder of the letter of "H. E.," we do not feel called upon to offer any remarks on the letter of "R. W." We regret space did not allow of its insertion last week, or that of "H. E."—the delay may, however, be productive of advantage to the miner.]

MESSRS. KYMER AND LEIGHTON'S PATENT FURNACE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—In consequence of the favourable statement which appeared in the *Mining Journal* of the 23rd instant of the progress making with Mr. Kymer's apparatus on board her Majesty's steamer the *Hydra*, I went yesterday to Woolwich to make inquiries about her, when, to my great disappointment and severe mortification, I found all the materials of the apparatus taken out and landed, as well as every bit of anthracite which had been put on board the vessel—the old fire-places being ordered to be replaced, and the vessel sent to sea with bituminous coal. It thus appears that the Swansea anthracite vessel is not yet to be demonstrated—"demonstrated" is not the word, either, which it is the fashion to use on such occasions—"developed," that is the term. I fear that until all the Hartley collieries in the north of England are worked out, the uses of anthracite will be confined to the drying of malt and burning of lime; then, and not till then, will anthracite prove to be anthracite—there will then be nothing like anthracite, and then, indeed, anthracite will be found to perform miracles.

The result of my inquiries at Woolwich satisfies me that there is nothing wrong in the principle of the plan patented by Mr. Kymer, the defect being merely in the mechanical arrangement, or rather in the materials made use of. I cannot but look upon this occurrence as a judgment inflicted upon the anthracite proprietors, for the neglect with which they have treated this invention—their lukewarmness, apathy, and even opposition towards Mr. Kymer, while straining every nerve to introduce the only effectual method of using anthracite as fuel for steam navigation. SCRUTATOR.

London, Sept. 27.

[We regret to add that, on inquiry, we find the authorities have acted as our correspondent states. We may have more to say on this subject in our next.]

THE SAFETY-LAMP.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—In glancing at the descriptive account of "Muncaster's safety lamp," which you have supplied in your Journal of the 16th instant, I confess that I can, so far as I understand it, see no advantage not already amply secured by the invention of Upton and Roberts, or even by the simple expedient I had suggested, in reference to the safety-lamp of Davy—viz., the application of a cylindrical shield of "Mussuey glass" (mica), as a defence from currents of air and lateral "blowers." It seems, however, albeit Mr. John Buddle, that Davy's invention has been pronounced by competent authority to be *unsafe*—an ascertained truth I have insisted on these very many years; and in a letter which Dr. Faraday wrote to me, he acknowledges distinctly his having admitted that he knew Davy's lamp to be unsafe. The date assigned to Davy's invention is incorrect. In a letter addressed to me by Sir Humphry Davy, he mentions that the safety-lamp was completed towards the close of 1816. The first safety-lamp ever proposed was described in a little work of mine, bearing date June, 1815, and Sir H. Davy acknowledges that his attention was directed to it by the Rev. Mr. Hodgson. The proposition was that of an air-tight lamp, supplied by air from the floor of the mine, by means of a flexible hose, its safety being dependent on the comparatively low specific gravity of the ascending hydro-carbonate. J. MURRAY.

September 29.

THE THAMES TUNNEL.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Business having required that I should pass several times lately from the Wapping side of the river to Rotherhithe, and vice versâ, I availed myself of the tunnel as a thoroughfare. For the first two or three times, I was delighted with it, as avoiding the delays, the dangers of being run down or swamped by the numerous steamers passing up and down the river, and the other various annoyances attending crossing the river in a small open boat—but I soon became sensible of an oppressive closeness in the atmosphere below, and the excessive fatigue of climbing ninety-eight steps to get out of it. For some time, the tunnel may be visited by numbers of people out of curiosity, but I am convinced that it can never be of general utility as a thoroughfare unless these objections can be obviated.—I am inclined to send this to you, as I consider the columns of your useful Journal the best medium for communicating such subjects, and directing the attention of parties interested to it.—*London, Sept. 28.* A. E.

RAILWAY REGULATIONS—PASSENGER AND LUGGAGE FARES.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Finding that you are ever ready to expose abuses, I take the liberty of addressing you on a subject which appears to me to be one of considerable extent—I allude to the present system of railway traffic. I have often been struck with the enormous charge for the transit of passengers, and it was not until I lately visited this part of the country that I saw the unfair dealings of the railway company towards the canal proprietors. It appears, that since the commencement of the Great Junction Railway, they have from time to time considerably raised the passengers' fares, at the same time they have invariably lowered the price of carriage of goods or merchandize—their motive being evidently to crush and ruin the canal proprietors, which if they were once to accomplish, they would then monopolize all the trade for both passengers and goods. Now, I certainly do consider that this unfair dealing is most cruel—first, to the class of individuals I have alluded to, who have expended immense capital in the formation of canals, or also giving employment to a large number of persons in carrying out the working of the same—and next, I consider, a very wholesome check upon the exorbitant desires of railroad companies. In the next place, it is unjust to passengers, that they should have to pay so large and disproportionate a sum for their fare, in order that goods may be carried at so low a rate—by this mode, I am in fact paying for the transit of goods every time I take a trip by the rail. Let us make it

comparison:—Certain materials, such as dung, limestone, coal, iron, &c., is taken at ½d. per ton per mile; sugar, grain, earthenware, deals, cotton, &c., 1½d.; whilst passengers from Derby to London, a distance of 132 miles, are charged as follows:—first class 30s., second class 20s., third class 17s. Now, suppose fifteen passengers to weigh a ton, the charge by first class will be 21l. for the 132 miles, whilst that for a ton of limestone, &c., would be only 5s. 3d. Now, it must be admitted by any man capable of reflecting, that this enormous disproportion is perfectly ridiculous. Passengers walk to the carriages, and at their destination walk away, without any trouble, whilst goods have to be loaded and unloaded, besides responsibility for damage. The railroad company are perfectly aware that the canals are not calculated to convey passengers, therefore with them they are safe, and need not fear any interference—they, therefore, with impunity, raise the fares of passengers, and lower the rates on goods; and, unless the legislature takes up this matter, it is impossible to say to what extent they may be led to carry on this most unjust traffic. I cannot conclude this without noticing a circumstance that occurred at this place—namely, at the railway station there is a painted board, with the rates of carriage both of goods and passengers; it is there stated as regards the latter, as follows:—"Passengers—first class, 1½d. per mile; second ditto, 1d. ditto; third ditto, ¾d. ditto." I should be glad to know, whether or not they are bound to carry passengers at this rate?—if so, the charge to London (132 miles) would be only 13s. 3d., instead of 20s. I made inquiry at the station, and was referred from one party to another for information—at last, I was put off with the evasive answer, that if I chose to find my own carriage and engine, they would take me at this rate. Such a piece of shuffling deserves the severest castigation—they find carriage and engine for goods at the prices stated on the same board.

W. K. C.

Derby, Sept. 20.

METHODS OF OBTAINING SILVER FROM ITS SULPHURETS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—There are various methods mentioned in your Journal for obtaining pure silver from its sulphurets; but is this the only state in which it is found in mines? Are there not corneous silver and other ores? and if so, how are they decomposed? An answer to these queries would oblige, your's, &c.,

Teignmouth, Sept. 20. AN ENQUIRER.

BLAENAVON IRON COMPANY.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—The remarks made in my letter can be borne out. It must be recollected they were in reply to an attack, by "A Shareholder," on all individuals recently agents at Blaenavon. The defence was, therefore, called for. "A Shareholder's" reply is an evasion of the question; he misquotes my words, and then reasons upon the misquotation. As it respects many points of his letter we are not at issue, I could say much more, but am reluctant to trespass on your columns. You can either insert this or not, as you may deem fit; but, your paper having been the medium through which an attack was made, I think, with submission, it ought to be open to replies.

Abergavenny, Sept. 23. A LOVER OF FAIR PLAY.

[We insert our correspondent's letter, but have only to repeat, that we cannot further allow of correspondence being continued through our columns which is not of general interest.]

COMBUSTION OF COAL—PREVENTION OF SMOKE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Since I wrote you in April, I had to be from home for two or three months—therefore, I have not been able to reply to the elaborate answers from Mr. Williams and Mr. Garnet, both of whom labour on the atomic theory of combustion, and from which I can draw no information (more than I knew years before this) regarding my queries—that is, how much aerial products passes off from a well-kept furnace on the old construction during the combustion of a ton of good coal; this they studiously avoid, but as Dr. Ure has, in some measure, filled up the blank, in his experiments on the draughts in the flues of steam-engine furnaces, and, as I said before, I was one of those that believed that enough of air passed through the bars of a well-kept furnace for the complete combustion of all the gases contained in the coal, so, for brevity's sake, I shall give, in round numbers, in rule of three style, the foundation on which my belief rests. Dr. Ure, in his experiments at Manchester, on the draughts through the flues of steam-engine furnaces, says the aerial products of combustion fly off with a velocity of fully more than thirty-six feet per second (my own experience shows, in many cases, it doubles and trebles this, but, as I am no authority, I shall for the present take his). Now, then, for example:—Take a well-kept furnace of a steam-engine boiler, eight feet long and four wide, with an aperture over the bridge of four square feet. Such a furnace would take more than six hours to consume one ton of coals, if well kept—consequently, there must pass over the bridge (according to Dr. Ure's data) the enormous number of 4,550,400 cubic feet of gaseous product in that time, but air and all other gases expand to four times their bulk, when heated to a white heat—consequently, there will still remain 1,137,600 cubic feet of gaseous product, at atmospheric temperature to have passed the bridge; this is what I call the practicable and experimental combustion, as it occurs in every furnace. Now, for atomic theory of combustion: one ton of coals of the same quality as the former will produce 10,000 cubic feet of gas, which requires ten times its quantity of air for complete combustion—making, in all, 110,000 cubic feet; then, supposing the coke to contain twice as much carbon vapour (which is more than it does contain), it would take four times as much air for its combustion—making, in all, 430,000 cubic feet; this is, in round numbers, I believe, nearly the atomic theory of combustion, so that 20,000 cubic feet of gas, the product of one ton of coal, requires 320,000 cubic feet of air for its combustion—making, in all, 430,000 cubic feet required for atomic theory. Mr. Garnet says there ought to be only 437,000 cubic feet of aerial products from one ton of coal. Now, take 1,137,600 cubic feet practical experience, and deduct 530,000 cubic feet atomic theory, there would still be left the enormous quantity of 607,600 cubic feet (more than one-half) in favour of practical experience, which atomic theory accounts for in no way whatever; yet, in the face of this, more air is required, although I have seen many furnaces of the old construction that emitted very little smoke, merely by a very simple arrangement in their flame bed, on philosophical principles, by which there was a great saving of fuel, and would not go out of order any more than the common wheel draught, the alteration of which could not in any case exceed 5l. Now, Sir, I do not deny but both Mr. Garnet and Mr. Williams are right in their atomic theory; but, with these facts before me, I cannot conceive how men can be found advocating the admission of an unlimited quantity of air behind the bridges of furnaces, without knowing what is deficient, and then telling us it is on chemical and practical data. As to its practical data, the opening the furnace-door taught that, and this is only a modification; as to its being a chemical consideration, I say it is as far from being chemical as day is from night, as chemistry admits of no chance quantities of parts to form any compound; however, if you give a certain quantity of one part, and too much of another, chemical combination will take only what it wants, so the residue goes to the hurt of what it was intended to benefit, as I believe to be the case in this combustion quibble. Now, Mr. Editor, I think I have shown, in pretty plain figures (laying experience aside altogether), that there is enough of air already admitted to well-regulated furnaces, yet Mr. Williams and others are determined to admit (I should think from the appearance of the apparatus) nearly half as much more. Again, it is said, the burning of smoke, by passing it over incandescent coke, began with Watt; I say the admission of air behind the bridge began with the stokers, in opening the doors, of which it is only a modification. Having said thus much, I shall, for the present, leave this in the hands of the smoke doctors, to reconcile the matter in the best way they possibly can, and until they can show me, on plainer grounds than they have yet done, that I am wrong, and they are right, I must just remain in the murky atmosphere of my own blindness, as well as a host of my blind fellow-men. I might have made a great many more remarks, and gone more into detail, but I think brevity is always best, and as I think I have already trespassed largely on your columns, I hope for the present you will forgive me.

Birkenhead, Sept. 20. T. SMITH.

NECROPOLIS CEMETERY COMPANY.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—In reading your notice on the above company's plans of conducting their cemetery, I think you have left out the preferable part—viz., wherein they propose to conduct the whole funeral performance, as well as the interment and conveyance, under one charge, for coffin and every expense, in six different classes, the first of which has two carriages for mourners and separate hearse, with a pair of horses for each, and superintendent on horseback, use of feathers, velvets for the horses, coffin covered with fine cloth, ornamented, and every way conducted in the most respectable manner, at a charge of 14l. 14s.; the second class, 12l. 12s.; third class, 5l. 5s.; fourth class, 3l. 3s.—all which have separate hearses and carriages; and the fifth class, 2l. 12s. 6d., and sixth class, 1l. 1s.—these two have the carriages which convey body and mourners together. With these advantages to the public, considering the extraordinary difference in the charges of this company and the undertakers' generally, I think they are entitled to great notice. A walking funeral, at the present time, is more expensive; and poor families may now bury their relatives and friends with decency, and in a rural cemetery, cheaper than they have hitherto done in the disgraceful metropolitan burial grounds. I feel this subject cannot be made too public—particularly, that the poorer classes may partake of the benefit.

A FRIEND TO IMPROVEMENTS.

REMEDY FOR POISONOUS EXHALATIONS.—The fertile genius of Mr. William Martin, the Christian Philosopher, has discovered that if the pernicious exhalations which pass off in the manufacture of alkali were discharged through a furnace made powerful by a fan-blast, of which he claims to have been the inventor thirty-eight years ago, all fuliginous and pernicious qualities will be consumed, so that the vapour will be no longer injurious to vegetation.—*Liverpool Standard.*

PROCEEDINGS OF PUBLIC COMPANIES.

CANDONGA MINING ASSOCIATION.

A general meeting of the shareholders of this company was held at the George and Vulture Tavern, Cornhill, on Thursday, the 26th instant, JOHN CATTLEY, Esq., in the chair.—The CHAIRMAN stated that the proprietors were called together in consequence of a resolution of a former meeting, which stated that they should be assembled previous to the property being offered to public competition.—Mr. HEPPEL (the secretary) read the resolution to the meeting, and the latest information from Rio, respecting the state of the mine, was laid on the table, part of which was read by the chairman, but it showed no immediate prospect of a gold return, though the ore was believed to be contiguous and abundant.—The CHAIRMAN alluded to the former inspection of the mine, but did not think it expedient, in the state of their affairs, to make any second examination, though the agent still clung to the hope of there being something at hand. The directors, however, did not feel they should be justified in going on with the concern, unless they entertained a sanguine and well-founded hope of the mine going on prosperously, which, not being the case from their information, they could not propose to make any further call on the proprietors. This was the opinion of the directors, and the committee appointed by the shareholders. He thought they had every reason to be satisfied with the experiments that had been made, though that outlay had not paid itself.

In answer to a proprietor, Mr. HEPPEL said that, taking all the experiments, extending over two years, they had incurred a loss of about 1600l.—The CHAIRMAN said, unless these experiments had been made, they could not have seen their position, and he, for one, did not think the expense very costly. It was the opinion of their solicitor, that having come to a resolution at a former meeting, that in case of no information arriving, to induce them to go forward, the property should be put up for actual sale at this period of the year; there was really no alternative but to proceed with the sale. The agent had given notice to the people that the works should actually close by the 31st of December, or they should have information of the sale. There would be, of course, some one to look after the property, but every means had been taken to wind up the concern at the earliest period possible.—A PROPRIETOR asked if it was intended to sell the property for what it would fetch, or had they a price named?—The CHAIRMAN: We are advised that we have scarcely any discretion on that subject.—A PROPRIETOR thought that the subject of price had better be left to the directors.—The CHAIRMAN said the price must, of course, be a matter of uncertainty. It was in the recollection of the shareholders that the cost of the mine was 33,000l., and that they were successful much earlier than they ever expected, which enabled the directors to pay two dividends, but ever since they had not been able to make it profitable.—A PROPRIETOR wished to know if they had learnt of any person going over to value the property previous to the sale?—The CHAIRMAN said they had no reason to think that any one had been over, but parties abroad might have instructed their agents here respecting the property.—Mr. TERRY said the question of price ought to be left to the discretion of the directors, by some authority of that meeting.—The CHAIRMAN assured the meeting they would act in the best way possible for the interest of the proprietors.—Mr. ROUTH said there would be great difficulty in passing any resolution for letting the property go at any particular sum. Suppose, for example, 1000l. were named, the directors might hesitate to undertake such responsibility from the vote of a meeting like that one, not representing one-twentieth part of the proprietors. If the subject were left to the discretion of the directors, no resolution would be necessary, as it was the wish of the former meeting.—In reply to a proprietor, the CHAIRMAN said there was sufficient abroad to discharge all claims there, independent of the mine.—Mr. T. WILSON said the association was dissolved two years ago, when it was considered which was the best method of winding it up, and making the most of the property.—In reply to a proprietor, Mr. ROUTH observed that they must wind up the concern. The solicitor's opinion was, that any shareholder could buy in the property, but, if the directors did so, they could not buy it for themselves; if they did so, they must buy it for their (the shareholders) own advantage. But, at the same time, they would be doing so on their own responsibility, and must look afterwards for indemnification from the proprietors.—Mr. TERRY thought that, after a lapse of two years of experiments from the time it was agreed to wind up, it was certainly now time to do something decisive. With regard to the sum mentioned for the various experiments it was certainly not excessive, and he was very much satisfied with the conduct of the directors. If the sale was left to their discretion, he had no hesitation but they would do their best for all parties; and, as the mine was still valuable, he had no doubt but they might prevail on some gentlemen to buy the property.—The CHAIRMAN said that the directors were themselves the largest shareholders.—Mr. T. WILSON then moved—"That it be left to the discretion of the directors to carry out the measures resolved on at a former meeting, and that the thanks of the meeting be given to them for the attention they had paid to the concern, and for the information supplied that day to the meeting."—Mr. LITTLEWOOD seconded the motion, which was passed unanimously.—The CHAIRMAN returned thanks, and said they had received about 30s. per share out of their 5l., and he hoped the residue would bring them from 5s. to 6s. in addition. On the sale taking place, they would take the earliest opportunity of communicating to the proprietors what was the result on that occasion.—The meeting then separated.

[It appears this property is for sale on the 6th October, at the Auction Mart, and is situated in the province of Minas Geraes. It has already yielded about 30,000l. from the gold ore disposed of, out of which two dividends were paid to the proprietors.]

SHEFFIELD AND MANCHESTER RAILWAY.

The general half-yearly meeting of proprietors in this railway was held in the Cutlers' Hall, Sheffield, on Wednesday, the 27th inst.

JOHN PARKER, Esq., in the chair.

The SECRETARY (J. Platford, Esq.) having read the notice convening the meeting, the common seal of the company was affixed to the share list.

The CHAIRMAN congratulated the proprietors at the time having arrived when their affairs were in a much more satisfactory condition; there was now no doubt but that the works would be completed within the period which had been already so frequently stated to the proprietors—viz., the expiration of the contracts, all of which, except one, would terminate at the end of next year. They had had to contend against a general adverse opinion, and until the tide had fairly turned, and people began to think the work would be accomplished, they experienced the greatest difficulty in raising money, and it was only last spring when the great work (the tunnel) was near completion, that the money began to come in; they had carried on the company's affairs without calling on the shareholders, and had also paid off the loan they had obtained in November last from the Exchequer Loan Commissioners; this loan, though it had been strongly animadverted upon, had been of great advantage, as it led the public to believe they had a good case. Government would have the credit for not advancing 50,000l. without sufficient reason, and the public came forward more readily with their money at 4½ per cent., which enabled them to pay off the loan. The traffic had increased very much indeed, and was still increasing, which was attributable to the lowness of the tolls, and the notoriety for safety which the railway had attained. As to the goods' traffic, they would have none until the Manchester station was in their hands, and unless they made better arrangements at the Glossop station, he found they would not have much of it at present, and if proper arrangements were made, great expense would be incurred; at present sheds only had been built. All the works on the line were under contract, and most of them nearly completed, as would be found in the engineer's report, from which it would be seen that everything was going on in the most satisfactory manner. The station at Manchester was on a large and comprehensive scale, and the report would show the rent to be paid; they had a lease of it for ever. With respect to the station at Sheffield, the directors had not yet, from the importance of the subject, taken any steps that would bind them to any. All the land for the Ashton branch was already purchased; this was absolutely necessary, or some competitors would have got it themselves; resolutions would be submitted for the approval of the meeting, for a branch to Ashton and Stalybridge, which would be of great advantage to the line. On the subject of the Barnsley branch, the Chairman spoke at great length, and contended such branch could be supported by the population and trade of the district through which it would pass. By the Act of Parliament procured last session, power was given to the company to issue new shares to the amount of 450,000l., and further to borrow 150,000l.; they would also be aware that an expenditure of nearly 700,000l. had been incurred already, and though they were in an easy position in respect to money, yet the monthly payments required a consolidation of their finances; after considering every possible means, the directors had come to the conclusion that the issue of new stock was by far the wisest course—they, therefore, proposed to issue 18,000 quarter shares of 25l. each, to be issued at par, with a guarantee of 7½ per cent. for a period of two years (payable in such sums, and at such times, as explained in our advertising columns). He had few other remarks to make; the tunnel was now only an ordinary work, and upon the whole situation of the company's affairs he trusted the meeting would consider that the directors had exercised a wise discretion.

The SECRETARY then read the report of the directors, that of the resident engineer, and the statement of accounts, for which see advertisement. From the latter it appeared that the amount received for passenger traffic from the 1st of December, 1845, to the 30th of June, 1846, was 8836l. 11s. 7d., and that the total amount received for all kinds of traffic between the same two periods was 8925l. 10s. 4d.—leaving a balance in the bankers' hands of 65,420l. 4s. 1½d.—Mr. T. BARBER said he was quite sure, that, after having heard the explanations given by the chairman, with the reports and accounts, it was only necessary for him to move, and which he did with great pleasure, that they be received, adopted, and printed for circulation among the shareholders.—Mr. JACKSON seconded the motion.—In answer to Mr. John Spencer, the CHAIRMAN stated, generally, with reference to the prospective liabilities of the company, that, at least, all the notes would, on all future occasions, be provided for before the time of payment arrived, and that their affairs generally were in an exceedingly satisfactory condition.—After very considerable discussion on the general affairs and prospects of the company, and their position with regard to the Birmingham and Manchester Company, Mr. J. PARKER moved the resolutions relative to the new shares, which were seconded by Mr. RANDALL (of Manchester), when Mr. SPENCE (of Hull) said he could not consent to the proposition, but recommended 50s. per share every three months, until the remaining 17l. 10s. on the old shares were paid up, which would make a difference of only 22,000l., and save all expenses for interest; this would enhance the value of the present shares 10l. each, while he believed, by the issue of new ones, the old shares would fall in price at least 5l. per share. He moved an amendment to the above effect, which was seconded by Mr. JAMES WILSON.—Mr. RANDALL ridiculed the idea of the directors being able to proceed with calls of 50s. per three months, when 600,000l. was required for the present contracts.—Mr. BLAKE could not concur in the views of Mr. Spence, but thought 7½ per cent. too high an interest. He thought 5 per cent. would be sufficient.—After very considerable discussion, in which the Chairman, Mr. Ironside, Dr. Holland, Mr. James Wilson, Mr. Appleby, Mr. Badger, Mr. Spence, and other shareholders took part, the amendment was put from the chair, and lost by an immense majority, only five hands being held up in its favour.—Mr. SPENCE proposed that, as the number of directors had been reduced, the allowance should be diminished from 1600l. to 1200l. per annum.—The CHAIRMAN said the proposition had been acted upon since the last meeting, when a similar proposal was made, but the meeting being special, it could not be entertained.—The motion was then carried, and the resolutions, for which see advertisement, having passed, thanks were voted to the chairman, who, in reply, expressed his satisfaction at the result of the day's proceedings, and the meeting separated.

RAILWAY IMPROVEMENTS.

The Germans are now adopting what is called the "bow-spring" in their railway carriages—are building them of great length, even of forty-eight feet, and with six and eight wheels.—"Each pair of wheels is independent of the others, and they have so much lateral play, that they are free to shift as the curves of the road may require. By this mode the wheels suffer considerably less friction than by the plans hitherto in use. Their movement is extremely soft, and beyond all comparison with that of the carriages hitherto in use; and there is no doubt that the principle may be applied with equal advantage to the construction of freight-carriages as to those for passengers. The expense of building these carriages, taking into account the numbers they carry, is not higher than that of ordinary carriages, as the accompanying designs and prices will show."—We copy the account of two of these long vehicles, one of which carries 112 persons!—

No. 10. Passenger carriage, third-class, upon eight wheels, with bow-spring and buffers (Leipsic and Dresden Railway).—This carriage contains ninety-six fixed and sixteen moveable seats, roofed and covered in at the sides. The upper frame rests on two turning under frames, moving on segments, so that the soft action of the bow-springs is in no way impeded. The places are so arranged that each passenger may reach his seat without having to pass more than two persons. The price of such a carriage is 2500 thalers (about 350l.), without wheels or axles.—(Total length, 47 feet.)

No. 21. State carriage on bow-springs (Altona and Kiel Railway).—The principal "coupé" is fitted up with sofas, looking-glasses, &c., to resemble an apartment. The general appearance is of the most elegant description. The price of this carriage is from 2800 thalers and upwards (without wheels or axles), proportioned to the elegance of the fitting. A carriage is at present building in which the principal coupé is entered from the adjoining coupés by means of inner doors, so that they serve as anti-chambers.—(Total length, 36 feet).—*Dublin Mercantile Journal.*

RAILWAYS IN SUSSEX.—A meeting of the principal merchants and tradesmen of Lewes was held on Tuesday last, at the Star inn, for the purpose of considering the propriety of adopting means for promoting the formation of a railway from Brighton to Lewes, or from Brighton through Lewes to Hastings.—Mr. Langford having been called to the chair, Mr. A. Rennie Briggs made a statement, founded on some conversation with Mr. Rastrick, engineer of the Brighton Railway, and on some calculations of his own, as to the desirableness of forming a railway communication between Brighton and Hastings. A branch to Hastings had been originally contemplated by the Brighton Company, with a junction at St. John's-common with the Brighton line—so that from Hastings to Lewes the plans and sections were already made. The St. John's-common junction, however, being now abandoned by all who considered the matter in favour of a line from Lewes to Brighton, a survey of the latter would be necessary. To accomplish this, and make a few alterations in the Hastings survey, would require about 400l., for which sum Mr. Rastrick would complete the plans, so as to enable an application to be made to Parliament in the next session. It was proposed to lay down a single line of railway from Lewes to Hastings, which would be sufficient for the traffic; and Parliament having granted an Act for a single rail line, sixty miles in length, to Peterborough, there was reason to believe that a single line would be sanctioned in this case also. Between Lewes and Brighton there would be a double set of rails; and should the effort now making to connect Hastings with the Dover line by means of a branch through Rye to Headcorn be successful, that would be only another link in a coast line from Portsmouth to Dover, which must ultimately be adopted—and a further portion of which would probably be laid down in West Sussex, under an Act to be applied for next session. Mr. Briggs also held out strong hopes that the Brighton Company would provide the capital which would be required, to the extent of about 350,000l. only, the price of iron being now less than half the price at the time of the forming of the Brighton Railway—and a viaduct of about 200 feet long at Brighton, and a tunnel of half a mile at Falmer, being the only works of importance on the line.—The meeting were unanimous in their approval of the project of a railway to Hastings; and a committee was appointed to consult with Mr. Rastrick, and to provide the funds necessary to complete the plans.

RAILWAY CONTRACTS IN FRANCE.—We have received a very useful little work, entitled "Railway Contracts in France, under the Administration of the Ponts et Chaussees, with the Conditions, Schedule of Prices, and Formulæ; also, some Remarks on Railroads," in which is embodied a great variety of interesting information connected with the formation of railroads in France, Germany, Belgium, &c. The rapid progress of railroads on the continent of Europe, and in America, and the almost universal interest taken in their construction, render the statistics and data contained in this book of value, not alone to the railway director and contractor, but to the public generally. In America, alone, the lines already actually finished and in use exceed 1500 leagues, while the length of those laid down and in progress are near 4000 leagues, and already of the latter 2200 miles are only waiting the rails to be finished. In Austria there are 700 leagues of line completely developed; in Bavaria, 100 leagues; in Saxony and Hesse, 150 leagues; in Prussia, 300 leagues; in Belgium, 140 leagues; while in France the present Government routes may be estimated at near 30,000 miles. The prices on the continental railways vary exceedingly, as do those of our own country. In Germany the average is 10 centimes per kilometre—about 1d. per mile; in France the average is about the same; in Belgium only about three-quarters of this charge; while in England the average of the great lines cannot be much less than 3d. per mile, if so low. As the great system of railroad travelling further developes itself, and though yet comparatively in its infancy, it is daily increasing in power and importance, and its effects on the condition of society are gradually showing themselves, it will, with steam navigation, sooner or later, effect an immense revolution throughout the nations of the world, and when Paris is only five hours distance from Lille, four from Havre, fourteen from Bordeaux, eleven from Lyons, twenty from Marseilles, and eleven from Strasburgh, all France will be at the gates of its capital, while the same advantages will take place in other countries, and the change in social life, riches, civilisation, and activity, cannot by any means, at the present moment, be appreciated.

ATMOSPHERIC RAILWAY.—A private letter from Dublin informs us that daily trips are now being made on the atmospheric railway from Dalkey to Kingstown, and that the speed is frequently not less than sixty miles an hour—which, with so many curves, is certainly a very rapid rate. We hope in an early Number to present some further particulars relative to this most important step in railway practice.—*Railway Times.*

WOOD PAVEMENT—(*From a Correspondent*).—The specimen pavement now being laid in the Poultry, on Ruskin's principle (the same as that tried in St. Giles's, after the failure of the wedge arrangement, which, however ingenious in a mechanical point of view, destroyed itself and the adjoining pavement by its lateral pressure), will, we think, afford a most permanent piece of work, and, from the nature of the surface, give a sure foot-hold for the horse. The arrangement consists of two series of blocks, of peculiar form, the surface ones being of elm, connected to deal ones, with a bituminous compound, the grooves on the upper ones being much larger and closer together than any of the other plans hitherto adopted. On a perfectly smooth bed of concrete these blocks are placed in the usual way, and the whole of the deeply-grooved surface is then covered with coarse grouting, which is again washed, and the surface rendered smooth as a bowling-green. The road, when finished, has an appearance of extreme solidity; how far it will stand the effects of the immense traffic of the present locality a few months will decide.

THE KOWRY GUM.—When the soil is washed up in the Bay of Islands, New Zealand, large quantities of a gum are discovered in the soil, where and how deposited are unknown. It seems to be pure and resinous, as if the remains of primeval and extinct pine forests, whose constituency precluded decay, whilst the wood itself perished. What may be its commercial value has not yet been fully ascertained. Experiments will be tried on some samples brought home in the *Erebus* and *Terror.*

MANUFACTURE OF IRON—FORM OF CUPOLAS.

Numerous as are the articles from our first-rate experimenters on iron which we give in the *Mining Journal*, as everything having the character of deep research on any point connected with this important subject must be of paramount interest, we give the following remarks, abridged from an able article (No. 5 of a series) which appears in the *Glasgow Mechanics' Magazine* for this month.

In elucidating the principles upon which cupola furnaces ought to be constructed and managed, founded on a knowledge of the various cupolas used and in actual operation, the subject is divided into two points of inquiry, in the first of which the influence of form and size are discussed, with the view of determining the most efficient form of cupolas; and in the second place, to point out the most effective description of fuel and of blast. As to the first point, the only true means of ascertaining the relative efficiency of variously formed furnaces is, to compare the relative quantities of fuel consumed with the iron melted—economy of fuel and rapidity of fusion, which generally accompany each other. Upon the quantity of coke consumed per ton of iron little stress should be laid as a criterion by which their relative values may be relied on—for, as the initial charges of coke are so much greater than those which immediately follow, it is plain the average consumption will be less the greater the quantity of iron melted. Being thus subject to the individual exigencies of the owners, the mere stated average of consumption of fuel in the present question is useless, unless is also stated the total quantities of iron melted at one time.

The writer then proceeds to notice the several varieties of cupolas in use. First, those which taper away from the hearth upwards to the charging-door, following generally a conical frustrum; secondly, cylindrically, or such as are in section under the charging-door; thirdly, expanding cupolas, of which the sides expand from the neighbourhood of the tuyeres upwards to the charging-door; and fourthly, cupolas, of which the form is a combination of two or all these figures. After a very careful analysis of the results of the employment of these cupolas, and some tabular matter, showing dimensions, quantity of coke, make of iron, and other essential points, he decides (apparently, from a searching investigation of the subject, justly) in favour of the expanding cupola. The important subject of fuel and blast will be afterwards considered.

MINING IN JAMAICA.

(FROM A CORRESPONDENT.)

From the extraordinary development of the mineral resources of this island, which must be apparent, even to a mere tyro in geology or mining, on his making a survey of the mountains, it does appear extraordinary that up to the present time such apathy exists, that the only mine working out of the many which might be opened, is worked with neither sufficient energy or talent, to convince either its owners or the public of its value or importance; yet this surprise, as far as the *natives* are concerned, will vanish when we recollect the case of the Cobre Mine. In Jamaica mineral wealth is said to abound from one side of the island to the other, and in a direct line with the Cuba mines; in some places a vein a foot thick may be traced over the barren mountain, and tons of ore picked from the surface in a few hours; in others, through the laminated strata, may be clearly followed, traversing it, the certain indication of a lode; nor are these merely to be supposed superficial patches or deposits from other localities. In Mount Vernon Mine the ore found on surface has been uninterruptedly traced to a depth of 275 feet in regular lode, exactly similar to the mines of Cuba, and there is every legitimate reason to believe, as far as mining experience and the great advance of geological science teaches, that this mine increases in quantity, if not quality, every fathom it descends.

MACHINE FOR RAISING AND LOWERING MINERS.

Description of a Machine for Raising and Lowering Miners. By John Taylor, M. Inst. C.E.—*Trans. Inst. Civil Engineers.*

The author states that the great depth to which the copper and tin mines, in Cornwall and in Germany, have been worked, had drawn simultaneously, in the two countries, the attention of engineers to some mode of facilitating the ascent and descent of the miners, whose strength was exhausted, and their health seriously affected, by the fatigue of going to and returning from the scene of their labours by nearly vertical ladders, as the men could not be raised and lowered by the rope of the winding engines, as in the coal districts. The Polytechnic Society of Cornwall offered premiums for machines for effecting this object, and, in 1834, three prizes were respectively awarded to Mr. Michael Loam, Captain W. Nicholas, and Captain W. Richards for plans—the two first of which embraced the principle which has since been adopted, with modifications, both in Germany and in Cornwall. A premium was also offered by Mr. Tremayne for any new method, or for the most available improvement on the former plans, and was awarded, in 1839, to Mr. J. Phillips for a method, differing, however, from that which has been put in practice. About this time it was ascertained that a machine, somewhat similar to that designed by Mr. Michael Loam, had been applied with success to one of the deepest mines in the Hartz; and drawings, with a description, were published in the *Report of the Polytechnic Society* of 1839. Mr. Charles Fox also commenced a subscription, for the purpose of awarding a sum of money to any proprietor of mines who would first bring into active operation efficient machinery adapted for the purpose in question. At length the adventurers of the Tresavean copper mines undertook to erect a machine from the designs, and under the superintendence, of Mr. Michael Loam; it was first used for a depth of twenty-seven fathoms, on the 9th of January, 1842—has since been extended to 204 fathoms; and it is now contemplated to carry it to the lowest part of the mines, which is 290 fathoms.

The machine, which is worked by a steam-engine, with a cylinder of thirty-six inches diameter, consists of two rods, to which are attached, at intervals of six feet throughout their length, platforms upon which the men stand; these rods receive an alternating motion from two cranks, which give them a stroke of twelve feet; the men, either in ascending or descending, step from one platform to the other, as the rods remain for an instant almost stationary, when the cranks are going over top and bottom centres; and as the platforms are half the length of the stroke apart, one set of men can ascend while another set is descending, without at all interfering with each other. Each rod makes three strokes per minute; and when once the platforms are filled with men, they are landed at the rate of six men per minute, either going up or down—the speed of travelling being about seventy-two feet per minute, or 240 fathoms in twenty minutes. By the ordinary mode of ascending by ladders, it would have occupied forty-eight minutes to mount from the same depth, as the usual speed is about thirty feet per minute—so that more than 50 per cent. of time is saved, independent of the diminution of fatigue.

The rods at the Tresavean mine act vertically for the first seventy fathoms, below which they follow the direction of the vein, diverging from the perpendicular from six inches to eighteen inches in six feet. The action of the apparatus is stated to be perfectly successful; no accident has occurred in the use of it, and the miners are convinced of the safety as well as the ease afforded by it.—The paper is illustrated by two drawings, by G. B. W. Jackson, Grad. Inst. C. E., showing the details of the machine; they are copied, by permission of Sir Henry de la Beche, from the model now in the Museum of Economic Geology, Craig's-court, London.

ENGLISH LOCOMOTIVE-ENGINES IN GERMANY.—In Germany (exclusive of Austria) there are running 180 locomotive-engines, built in England, of which Messrs. Robert Stephenson and Co. made 81, running on 14 lines of railway; Sharp and Co. made 40, running on 10 lines of railway; Turner and Co., 11; Rothwell, 10; Longridge and Co., 5; Forrester and Co., 5; Kirtly, 5; Taylor and Co., 4; Bury and Co., 4; Fenton and Co., 2; Gaskell, 2; Hawks, 1; Hawthorn, 1.—Total, 180.—*Leipzic Journal.*

PATENT EQUITABLE GAS-METER.—A new invention, entitled the "Newcastle-on-Tyne Patent Equitable Gas Meter," has been brought to perfection. The utility of gas-meters has always been acknowledged, but it has been proved by scientific investigation, that the registry effected by the majority of existing ones is [illegible] and inaccurate. Where such meters are found, it is injurious to the manufacturer, as sometimes the registry is below the consumption; and it is severely felt by the consumers, as they are often overcharged, and are always annoyed by the uncertainty that exists. The following are the principal qualities of the new invention:—1. Registering accurately, under all circumstances, the exact amount of gas consumed. 2. Working without any complicated machinery, which may be liable to get out of order by wear and tear. 3. Working without affecting, by its operation, the steadiness of the supply, and avoiding any flickering of the lights. 4. Security from leakage, the unpleasant consequences of which are often felt. 5. Occupying only one-half of the space, and being less costly than the present meters.—*Durham Advertiser.*

NEW LIFE-BOAT.—Mr. Martin has shewn us a model of a new life-boat, the construction of which is very ingenious, but, what is of more importance, it is likely to prove very useful. The boat is much broader than those in use, has two [illegible], and is so arranged that the water which may wash in during a rough sea has a safe and immediate mode of escape. We recommend the attentive inspection to all seafaring people.—*Tyne Mercury.*

TRALEE SHIP CANAL.—We are glad to perceive that the work of the new canal is progressing with much activity, under the direction of Messrs. Owen and Russell, of the Board of Works. An immense number of labourers are actively engaged.—*Kerry Examiner.*

MINING CORRESPONDENCE.

ENGLISH MINES.

TRETHELLAN MINING COMPANY.

Sept. 25.—Account held on the mine of cost and receipts for July and August:

Dr.—To labour cost, 867*l.* 9s.—Merchants' bills, 330*l.* 10s. 2d. £1197 19 2

Cr.—By copper ores sold June and July ... £2540 6 8

Deduct 1-15th for lords' dues ..... 169 7 1—£2370 19 7

Add balance in hand at last account .... 831 17 1—3202 16 8

Making a profit of 2004*l.* 17s. 6d., from which deduct 1200*l.* for a dividend of 10*l.* per 1-120th share, declared this day, leaves a balance of 804*l.* 17s. 6d.

[This mine, except in a winze, is but poor—Brewer particularly so. It is intended, we believe, dividing 5*l.* per share. Two levels are already through, and into West Trethellan, and are very poor.]

TRESAVEAN MINE.

Sept. 26.—Account held on the mine of cost and receipts for July and August:

Dr.—To labour cost and merchants' bills £5740 8 9

Cr.—By copper ores sold April and May ... £7279 17 0

Deduct lords' dues .... 364 5 7—£6915 11 5

Received for sundries 104 3 6

Balance in hand last account .... 449 4 1—7469 19 0

Making a profit of 1680*l.* 10s. 3d., from which deduct 1200*l.* for a dividend of 12*l.* 10s. per 1-96th share, declared this day, leaves a balance of 480*l.* 10s. 3d.

[This mine is poor in her lower levels, with the exception of the 260, west of Harvey's engine-shaft, which has improved considerably in the last few days.]

HOLMBUSH MINING COMPANY.

Sept. 25.—In the 110 fathom level, on the south lode, west of Goldsworthy's winze, the lode is one foot wide, and worth 12*l.* per fathom; on the north lode, west of the winze, the lode is fifteen inches wide, producing good stones of ore; east of the winze the lode is twenty inches wide, and worth 35*l.* per fathom. In the 100 fathom level, west of Hitchins's shaft, we hope shortly to cut through the great cross-course; the lode in the eastern stopes, in the back of this level, is twenty inches wide, and worth 40*l.* per fathom; in the western stopes no lode taken down since last report. In the ninety fathom level west we have had a small cross-course, which has thrown the lode out of its regular course, which will be met with again in a few feet driving; in the stopes east of Hitchin's shaft the lode is twenty inches wide, and worth 45*l.* per fathom; in the stopes west of ditto the lode is eighteen inches wide, and worth 35*l.* per fathom. In the eighty fathom level, east of Wall's shaft, the lode is eighteen inches wide, producing stones of ore; at this level west the lode is one foot wide, composed of capel, spar, mundic, and stones of ore; the north lode, at this level, is without alteration; at this level, east of the great cross-course, the lode is eighteen inches wide, and worth 20*l.* per fathom; in the deep adit level, east of Lady Beam shaft, the lode is eighteen inches wide, composed chiefly of capel, with some spar and mundic. The pitches are looking favourable. T. RICHARDS.

TRELEIGH CONSOLS MINING COMPANY.

Sept. 25.—In the eighty, west of Christoe, the lode is one foot wide, poor; the eighty, east of ditto, is worth 12*l.* per fathom. In the seventy, east of ditto, the lode is fourteen inches wide, good stones of ore. In the sixty, east of ditto, the lode is two and a half feet wide, worth 3*l.* per fathom. In the fifty, east of ditto, the lode is two feet wide, worth 15*l.* per fathom. In the seventy, west of Garden's shaft, the lode is two feet wide, with stones of ore. In the sixty, west of ditto, the lode is fourteen inches wide, very good stones of ore. Good Fortune sump, below the fifty fathom level, is worth 6*l.* per fathom. The fifty fathom level east is worth 8*l.* per fathom; the fifty west is worth 8*l.* per fathom. The thirty-four fathom level west is suspended for the present; in the thirty-four, east of ditto, the lode is three feet wide. The twenty west is worth 3*l.* per fathom. In the new shaft, below adit, the lode is two and a half feet wide, good stones of ore. W. SYMONS.

CALLINGTON MINING COMPANY.

Sept. 25.—At the north engine-shaft we have sunk about 5 fms. 4 ft. below the sixty; at this level, driving south, in the past week we have cut a lode, supposed to be the counter lode, about two feet wide; the south part of it is composed of spar, with mundic and copper—although not saving work about eight inches wide; the lead lode to the south of this continues to look well. At the fifty fathom level south the lode is about four inches wide, producing silver-lead ores. The forty south is unproductive. The fifty east, on copper lode, is small and poor. The thirty east, on copper lode, is about six inches wide, holding copper, with mundic, peach, and jack. Our tribute pitches are looking favourable. At Hurldown adit the ground still continues soft. At the south mine, the stack being complete, the masons are engaged about boiler-house, walls, and flues, which will soon be closed up. Other surface operations are progressing in a favourable manner. Our sumpmen are engaged in hanging in the main rods, and making preparations for dropping the lift. The 7th October is the day fixed for putting the engine to work. J. T. PHILLIPS.

CORNUBIAN MINING COMPANY.

Sept. 25.—Murray's engine-shaft is sunk about nine and a half fathoms below the sixty fathom level; it will require eleven fathoms to complete it to the seventy, in consequence of the incline or underlay of the lode. The seventy fathom level men are engaged in rising to meet the winze sinking below the sixty fathom level, and which we expect to hole by the end of this month. The lode in the rise being hard and wet, we intend letting it stand until we effect a communication. The winze sinking below the sixty fathom level, on the north lode, is still passing through good easy ground. In driving south of the great engine shaft, at the seventy fathom level, to intersect the Chiverton lode, we find the ground favourable; we continue to have a good lode in the stopes at the sixty fathom level. The parcel of lead (being August ore), computed sixty tons, sold at 13*l.* 4s. 6d. per ton, shall be forwarded to their works at the river Dee, according to your instructions, in a day or two. J. WEBB. R. HOWE, Jun.

UNITED HILLS MINING COMPANY.

Sept. 26.—In Williams's shaft the lode is three feet wide, one foot on the north part producing some good stones of ore. In the seventy fathom level, in the eastern end, the lode is three and a half feet wide, two feet ore of fair quality; in the western end the lode is four feet wide, one foot on the north part producing good ore. In the sixty fathom level, east of eastern shaft, the lode is two and a half feet wide, producing but little ore. West of diagonal shaft the lode is four and a half feet wide, three feet ore of average quality. East of James's shaft the lode is four and a half feet wide, ore throughout, with a promising appearance; west of James's the lode is five feet wide, ore throughout, of a coarse quality. East and west of Nettle's winze the lode is four and a half feet wide, producing ore throughout, of a low quality; in the winze the lode is three and a half feet wide, eighteen inches on the north part good for ore. The lode in the stopes (James's) is six feet wide, ore of fair quality. In diagonal shaft the lode is four feet wide, producing some stones of ore. In the fifty fathom level end the lode is three and a half feet wide, eighteen inches good ore; the lode in the winze is two and a half feet wide, one foot on the north part ore of good quality. In Gibson's shaft (Wheal Sparrow) the ground is rather more favourable for sinking. In Turner's shaft the lode is three feet wide, ore throughout, of a fair quality. In Hill's shaft the lode is two feet wide, producing a small quantity of ore. In the twenty fathom level the lode is eighteen inches wide, nine inches good ore. N. LANGDON.

CONSOLIDATED TRETOIL MINING COMPANY.

Sept. 23.—The lode in the fifty fathom level, east of Hosmond's shaft, is fifteen inches wide, tribute ground; the lode in the rise, in the back of this level, is nine inches wide, good tribute ground. The lode in the fifty fathom level, west of Hosmond's shaft, is one foot wide, good tribute ground. The lode in the forty fathom level, east of Hosmond's shaft, is one foot wide, good tribute ground. The lode in the winze, sinking under the bottom of the thirty fathom level, east of Hosmond's shaft, is small and unproductive. H. WILLIAMS. J. MORCOM.

WEST WHEAL JEWEL MINING ASSOCIATION.

Sept. 25.—We have not taken down the lode in the eighty-five east, on Wheal Jewel lode, since our last, nor shall we do so until the end of the week. The eighty-five west on the same lode is fifteen inches wide, composed of spar and spots of yellow ore. In the winze sinking in the bottom of the seventy west, the lode is worth 25*l.* to 30*l.* per fathom. The winze sinking under the seventy east is worth 20*l.* per fathom. The winze sinking under the fifty-seven, on south branch, is worth 6*l.* per fathom. In the thirty south on, the little cross-course, we have not yet cut Wheal Jewel lode on the eastern side, but we have a good branch of ore on the side of the cross-course, which we regard as a favourable circumstance for ore. S. LEAN.

FOREIGN MINES.

ST. JOHN DEL REY MINING COMPANY.

Morro Velho, July 3.—Number of tons stamped, [illegible]—[illegible] oits. per ton. Only 120 tons of inferior ore were rejected, which circumstance renders this produce the most extraordinary one we have had this year. There has been much less ore supplied by the miners this month, from a number of concurring circumstances, to which allusion is made in the report. The pumping gear for the Bahia is being urged on with all force. Since last post a short adit, of about thirty fathoms in length, has been commenced, to strike the east Cachoeira mine, for the purpose of assisting the intended sump there. It will come in ten fathoms below the brace of Fragilly's shaft. I doubt not this short adit will cross two or three lodes, if old accounts are to be relied on—one particularly is said to be a very good one. One lode, of six feet wide, was cut last evening in the open cut part of the adit, and looks of a nature to become of good quality in depth. Pretty good progress, you will see, has been made on the [illegible]. The [illegible] platform, I dare say, would have been all completed, had the whole force intended been kept on there. The Cristaes leat, I hope, in some days time, to see bring home twice as much water as is now working fifty-four heads. The bridge for carrying the Cristaes water across the brook, I hope to see commenced in this month (July); the timber for it has been ready several weeks. The only thing wanted is time for the carpenters to take it in hand.

Produce for June.—9777 [illegible] oits., equal to 93,[illegible] lbs. troy.

Costs for June.—Rs. 15,348 650.

IMPERIAL BRAZILIAN MINING ASSOCIATION.

Gongo Soco, June 13.—It continues still to be out of my power to report to you any change for the better, either in the produce or prospects of the mine. In the Camara mine the cross-cut has been driven about twelve feet into the lode without any improvement. The cross-cut will be continued until the lode has been driven through. Since my last I have been to Cata Preta, for the purpose of setting the party to work there. J. K. H. CRICKITT.

P.S.—Since writing the above, three boxes of work have been obtained from a vein met with in an arch of ground in the back of Walker's tram level (fourteen fathom level), and a little to the west of Goldsmid's shaft. The vein is not rich—each box contains about a pound of gold; at the time of writing there is no gold in sight. It would give me pleasure if I could hold out hopes of its continuance; but being in old ground, we may at any moment hole to old workings.

MINING LYRICS—No. II.

THE MINE VISION.

Mind mus'd for themes to while away
 The miner's lonely hours,
Where all untrodden was the path,
 She steam'd internal pow'rs—
Flew heights and deeps and levels long,
And of old adits heard the song.

The spirits of the mine drew nigh—
 "Bal!" the mysterious word,
That bid them down the eye to dive,
 From baddle-boy to lord;
Adventurers in tears and sighs,
"*Men*" in good luck and agonies!

The cost-book system and the scrip,
 The purser, manager,
The Justice and Vice-Warden's courts—
 Aye! things the spirit stir;
And chords internal of the heart,
When heal'd a bruise or felt a smart.

The sweating energies of men,
 And mine's more potent might—
The echoes of the deep'ning deeps,
 And the inverted light—
The poison'd air, the bleeding ones,
And widows wailing husbands, sons.

Of captains, clerks, what ghosts drew
 nigh—
 List! of the olden school!
Aye! diamond gossans in the rough,
 Whom none could call a fool,
My spirit wish'd awhile to pray
Where the mighty dead had pass'd away;

But moderns, who knew more by far,
 Came for their meed of praise,
And from my vision scared away
 The men of other days,
Whose deeps were surface to the mines,
Where now the breaking min'ral shines.

Then what a crowd of images
 Upon my vision burst,
That fancy may erewhile describe,
 If the mine muse be nurs'd;
Bal maidens, by their am'rous boys,
Steam engines pliable as toys.

The setting and the pay-day, too,
 And say's when cash there's none—
The count-day, "debt," and ticketing,
 And "kitting" that is done,
As well above as underground,
And rival jealousies around.

Mine, critics, lawyers, editors!
 Bal poets, too, I ween!
The smelting-house and copper-house—
 We'd better close the scene
That shows to saints and divines,
 There's untold poetry in mines.

Penzance, Sept. 19. ALFRED T. J. MARTIN.

MINE ACCIDENTS.

Carn Brea.—Matthew Hodge, while at work in one of the levels at this mine on the 23d inst., some ground fell away from the roof, and knocking him into a winze, killed him almost instantly.

Consolidated Mines, Gwennap.—Benjamin Michell was killed by the blasting of a hole in this mine on Tuesday last.

Pool Colliery, Llanelly.—Five men were seriously hurt by an accident at this colliery, on Saturday last, from the bursting of the engine boiler, which is said to have been an old one, and ought to have been condemned.

TREGOLLAN MINE—(*From a Correspondent*).—This mine, which is situated near Bodmin, and formerly worked by a London company, has been purchased by a private party, and is now conducted on the cost-book system.

VALUABLE DISCOVERY OF MANGANESE.—The valuable manganese mine near Tomintoul is now being worked with success, and forms a source of profitable employment to many. The discovery of this treasure was made in the course of a search for iron, which would have been of little value in such a locality. A lead mine was also expected, but in place of it was found the valuable vein of manganese, which the Duke of Richmond now rents to an English company at 300*l.* per annum, and 1*l.* for each ton of manganese. This year, 1200 tons, it is said, will be taken south, and, as the supplies seem exhaustless, and other veins may be opened up, these bleak-looking hills, which, a few years since, were of little or no value, may turn out to be one of the richest prizes on the duke's Scottish estates.—*Aberdeen Herald.*

WELSH WHITE ASH COAL.—We have seen with much pleasure a remarkably fine schooner, named the *Seahorse*, of Dublin, which has arrived in our port this week, and is lying at one of our wharfs, taking in Cwmbrane white-ash coal for Malta. The *Seahorse* was built at Belfast, by Messrs. Connell and Sons, and is a very fine specimen of naval architecture. She belongs to Frederick Sharpe, Esq., of Dublin, and is commanded by Captain George Chaveley, a naval officer, and one whose extensive experience, skill, and enterprise will, we doubt not, make the vessel a good speculation for her owners. This is her first voyage, and we hope to see her often again in our port, taking away our steam coal, which has already established its superiority in every part of the world.—*Monmouthshire Merlin.*

INFERIORITY OF BELGIAN COKE.—For the comfort of the Newcastle coal-owners, and as a set-off to a paragraph depreciatory of the Newcastle coal, we have to mention that serious complaints have been made by all parties connected with the Paris and Rouen Railway, in reference to the Belgian coke which has been latterly used upon it. The *Journal de Rouen*, of Sunday last, informs us that on the opening of the railway, and for some time afterwards, the locomotives were supplied with English coke, and all went well. The stock, however, became exhausted, and recourse was had to Belgian coke. The trains immediately became seriously retarded, and the company has appealed to the Tribunal of Commerce, for damages against the merchant who supplied the Belgian coke—and surveyors have been appointed, in consequence, to estimate the damage.—*Gateshead Observer.*

Messrs. Hawks, Stanley, and Co., entertained the agents of Harton and Whitburn Collieries, and a few of their friends, at the house of Mr. L. Sanster, Colliery Hotel, near the new "winning," on Wednesday last, to commemorate the starting of a pumping-engine at the above place, of 300-horse power, and on the expansive principle.—*Gateshead Observer.*

A new colliery has been opened at Woodifield, near Crook. The coal is said to be of a superior quality.—*Durham Advertiser.*

NORTH HETTON COLLIERY.—Arrangements are now in progress for shipping the produce of North Hetton Colliery in the river Wear by means of the Hetton Coal Company's railway and drops. These coals were formerly shipped in the Wear under the name of Russell's Wall's End, but they have for some years past been shipped at Seaham Harbour.—*Gateshead Observer.*

COALS.—It appears by the monthly returns, just published, that the quantity of coals shipped during the last month, from the Wear, Tyne, and the Tees, is as follows:—From Sunderland, 56,[illegible] tons, carried by 128 vessels; from Newcastle, [illegible] tons, by 335 vessels; and from Stockton, 32,[illegible] tons, by 130 vessels.

We regret we have to announce the death of Mr. G. Creery, for many years the manager of the Imperial Slate Quarries, near Portree.

PLATE GLASS TRADE.—The Union Company's very extensive plate glass works, at St. Helen's, after having been closed for some months past, have been again put into operation to the great joy of some hundreds of workmen, who, for a long time past, have been literally starving for want of employment.—*Liverpool Standard.*

PEAT BED UNDER ST. PAUL'S.—On Friday, in the course of excavations which are in progress in St. Paul's Churchyard, the workmen came to a bed of peat at about thirteen feet from the surface. The depth of the bed was four and a half feet. There have been above twenty carts filled with it. A quantity of bones, earthenware, and various other articles, were dug up from among the soil immediately in the top of the bed, from which it is supposed that this was the original surface, as all above is what is called "made earth." It is a remarkable fact, that throughout the greater part of the city of London there is a depth of from ten to fifteen feet of made earth, which is the accumulation of many centuries.

STEAM-CARRIAGES ON THE COMMON ROADS.—It is well known that several years ago steam carriages were invented for the highways, but have not been applied in consequence of the discovery that their power was greatly reduced by the unevenness and inferior texture of those roads which interfered materially with the action of the machinery, that little or nothing was to be gained by substituting them for the horse carriages. The [illegible] that threatens most of the old roads, by the establishment of railways, has encouraged attention to the expediting of travelling on those roads, and it is now said that the remedy is to be found by laying them down with wood, the uniform hardness and smoothness of which would enable the carriages to travel with double speed. The expense, too, of laying such roads, is said to be one-third the cost of the iron railways. In fact, it is asserted that [illegible] a mile will cover all expenses, though an iron railway would cost from [illegible] to 20,000*l.* per mile. There is one thing, however, that seems not to be [illegible] sufficiently answered. Will the steam carriages be able to ascend the hilly roads, for otherwise their utility must be confined to the plains? We have no doubt they could travel at one-third the expense of horse-power, and at double the rate of speed on level grounds, but, at the same time, it is not likely they can ever compete with the railways.—*Plymouth Times.*

PUBLIC COMPANIES.

MEETINGS.

Tamar Silver-Lead Mining Co.	44, Finsbury-square	Oct. 2	2.
Ashby-de-la-Zouch Canal & Railw.	Queen's Head, Ashby-de-la-Zouch	2	1.
Clarence Railway Company	George and Vulture	3	1.
River Dee Company	9, Mansion House-street	4	11.
Monmouth Railway Company	Monmouth	4	12.
Trebigh Mining Company	23, Throgmorton-street	4	12-1.
Miners' Company	57½, Old Broad-street	4	1.
Rocke Tin Mining Company	George and Vulture Tavern	5	1.
Eagle Insurance Company	3, Crescent, Bridge-street	6	12-1.
South Metropolitan Gas Company	Three Tuns, Borough	9	12.
New Zealand Company	New Zealand-house	12	12.
Imperial Gas Light and Coke Co.	33, John-street, Bedford-row	12	12.
Porth Cawl Iron and Coal Co.	N. and S. American Coffee-house	24	2.
Northern and Eastern Railway	Station, Shoreditch	25	1.

CALLS.

Rouen and Havre Railway...... 2l. per share ... At the Offices ...... Oct. 2.

DIVIDENDS.

Royal Bank of Ireland...... 5 per cent. ... The Bank ...... Oct. 2.
Bank of Australasia ...... 4 per cent. ... 2, Moorgate street ...... 16.

CURRENT PRICES OF STOCKS AND SHARES.

STOCK EXCHANGE, Saturday morning, Twelve o'clock.

Consols Money, 84¾ ⅝	Dutch, 2½ per Cent., 51¼ ¼
Consols Account, 85	Ditto, 5 per Cent., 101 ¼
New 3½ per Cents., 107½ ¾	Portuguese, Conv., 5 per Cent., 41¾ 34
Exchequer Bills, 62 64 pm.	Russian, 5 per Cent., 114½ 114
Belgian Bonds, 5 per Ct., 104¾ 5¼	Spanish, Actives, 5 per Cent., 19 ¼
Brazil, 5 per Cent., 75 6	Ditto, 3 per Cent., 29¾ ¼
Danish, 5 per Cent., 86¼ 7¼	Chili, 6 per Cent., 100 2

PROMISSORY NOTES AND BULLION.—An account of the average aggregate amount of promissory notes, payable to bearer on demand, which have been in circulation in the United Kingdom, distinguishing those circulated by the Bank of England, by private banks, and by joint-stock banks, in England and Wales, by the banks in Scotland, by the Bank of Ireland, and by all other banks in Ireland; and of the average amount of bullion in the Bank of England, during the four weeks ending the 16th day of September, 1843:—ENGLAND: the Bank of England, 19,161,000l.; private banks, 4,[illegible]; joint-stock banks, 2,760,000l.—SCOTLAND: Chartered private, and joint stock banks, 2,659,176l.—IRELAND: Bank of Ireland, 2,875,[illegible]; private and joint-stock banks, 1,[illegible].—Total, 33,[illegible]. Bullion in the Bank of England, 11,[illegible]. HENRY L. WICKHAM.

Stamps and Taxes, Sept. 29.

The premium on gold at Paris is 11 per mille, which, at the English Mint price of 3l. 17s. 10½d. per ounce for standard gold, gives an exchange of 25 41, and the exchange at Paris on London at short being 25 62½, it follows that gold is 0·78 per cent. dearer in London than in Paris.

By advices from Hamburgh the price of gold is 437 per mark, which, at the English Mint price of 3l. 17s. 10½d. per ounce for standard gold, gives an exchange of 13 11, and the exchange at Hamburgh on London at short being 13 12¼, it follows that gold is 0·66 per cent. dearer in London than in Hamburgh.

The course of exchange at New York on London is 109½ per cent., and the par of exchange between England and America being 109 28-40 per cent., it follows that the exchange is 0·32 per cent. against England. But the quoted exchange at New York being for bills at 60 days' sight, the interest must be deducted from the above difference.

[From our own correspondents.]

LATEST PRICES OF IRISH STOCKS.—3 per Cent. Consols, 94¼l. to 91¼l.; 3½ Stock, 101¼l.; ditto New, 1000, 101¼l.; 3½ per Cent. Debentures, 85¼l.; Bank Stock, 178¼l.—Kingstown Railway, 11¼l.; Dublin and Drogheda, 39¼l.—Hibernian Bank, 26¼l.; Royal Bank, 10¼l.; Provincial Bank, 40l.—City of Dublin Steam Co., 94¼l.; ditto Stock, 1000, 47l.—Steam Ship Building Company, 47l.; British and Irish ditto, 8¼l.—National Insurance Company, 8¼l.; Patriotic, 7¼l.—Mining Company of Ireland, 11l.; Wicklow Copper Mines, 12¼l.

LEEDS, THURSDAY.—Our market has been exceedingly buoyant during the last week. North Midlands and Midland Counties have been sold here at 81l. per share, and for Edinburgh and Glasgows there has been a good demand at 50l. Hull and Selby old shares have been difficult to quit at 42l.; and Sheffield and Rotherhams are as dull as can be at 35l. per share.—Bank stock generally seems to have ceased to occupy the capitalist's attention—and no wonder, when railways offer so many more advantages to investors. Our latest quotations are as follow:—North Midland 8[illegible]; York & N. Midland, 102l.; Leeds and Selby, 100l.; Hull and Selby, 42l.; Gt. North of England, 70l.; Manchester and Leeds, 61¼l.; Sheffield and Rotherham, 35l.; Edinburgh and Glasgow, 50l.; Bristol and Exeter, 50¼l.; Cheltenham and Great Western, 25l.; Northern and Eastern, 20l.—Leeds Banking Company, 16l.; Leeds and West Riding, —l.; Leeds Commercial, —l.; Yorkshire District, —l.—Leeds and Liverpool Canal, 8[illegible]; Huddersfield, 14l.; Rochdale, 60l.—Leeds and Yorkshire Assurance Company, 14¼l.—Leeds Old Gas Company, —l.; Leeds New Gas Company, 50l.—Leeds Commercial Buildings, 20l. R. B. WATSON & CO.

HULL, THURSDAY.—The markets have been good again this week. Brightons have slightly receded, on account of the settlement being at hand, perhaps.—Birmingham & Derby, 61¼l. to 62¼l.; Edinburgh and Glasgow, 50l. to 50¼l.; Gt. North of England, 70l.; Hull & Selby, 41¼l. to 42¼l.; Leeds and Selby, 100l. to 102l.; London and Birmingham, 19[illegible]; Liverpool and Manchester, 200l. to 210l.; London and Brighton, 30¼l.; Manchester and Leeds, 61l. to 82l.; Midland Counties, 82l.; Newcastle and Carlisle, 76l.; Northern & Eastern, 20¼l.; North Midland, 82l.; South Eastern, 29¼l.; York and North Midland, 102¼l.—Yorkshire District Bank, 2¼l.; Hull Banking Company, 4l. to 4¼l.—Hull Dock Company, 120l.; Hull Gas, 21l. to 22¼l.; Hull Flax and Cotton Mills, 10l.; Hull Marine Insurance, —l.

GLASGOW, THURSDAY.—Ballochney Railway, 56¼l.; Dundee & Arbroath, 15¼l.; Edinburgh and Glasgow, 50l.; Garnkirk and Glasgow, 20l.; Glasgow and Greenock, 16l.; Glasgow, Paisley, Kilmarnock, and Ayr, 54l.; Monkland and Kirkintilloch, 40l.; Slamannan, —l.; Wishaw & Coltness, 20l.—Forth and Clyde Canal, 11[illegible].—Bank of Scotland, 100l.; Royal, 1[illegible]; British Linen Company, 2[illegible]; Commercial, 1[illegible]; Glasgow Union, 6[illegible].—North British Fire and Life Insurance, 10¼l.; Caledonian Fire and Life, 2[illegible]; Scottish Marine, ¼l.—Royal Exchange, 4[illegible].—Old Clyde Shipping Company, 30l.—Shott's Iron Company, —l.

NEWCASTLE-UPON-TYNE, THURSDAY.—There is little alteration in our market; Great North of England Railway shares continue in demand at advanced rates—other stocks remain as before quoted.—North of England Joint-Stock Bank, 9¼l.; Northumberland and Durham District, 8l.; Newcastle, Shields, and Sunderland Union, 4¼l.; Newcastle-upon-Tyne Joint-Stock, 11l.; Newcastle Commercial, 8l.; Sunderland, 5l.; Darlington District, 4l.; Carlisle City and District, 10l.; Carlisle and Cumberland, 6¼l.; Stockton and Durham County, 5l.—Newcastle and Carlisle Railway, 7[illegible]; Newcastle and North Shields, [illegible]; Brandling Junction, 20l.; Durham and Sunderland, 1[illegible]; Clarence, 1[illegible]; the Maryport and Carlisle, 1[illegible]; Hartlepool Dock and Railway, 1[illegible]; Bishop Auckland and Weardale, 4[illegible]; Great North of England, 70l.; Newcastle and Darlington Junction, 1[illegible].—Newcastle Union Shipping Company, 1[illegible]; Port of Newcastle, 8l.; Gateshead and Tyne, 6l.—North and South Shields Steam Ferry, 1[illegible].—Newcastle Subscription Water Company, 3[illegible].—Newcastle and Gateshead Union Gas Company, 7¼l.—Durham County Coal Company, 1l.; Northern Coal Mining Company, —l.

LIVERPOOL, SEPT. 30.—ACTUAL SALES DURING THE PAST WEEK.—Eastern Counties, 7¼l.; Edinburgh and Glasgow, 49¾l., 50¼l.; Grand Junction, 214l., 215¼l., 2[illegible]; Great Western, 88¼l.; London and Brighton, 29¼l., 30¼l.; Manchester and Birmingham, 35¼l.; Manchester and Leeds, 79¼l., 81l., 8[illegible], 82l.; Midland Counties, 79¼l., 79l., 80l.; North Midland, 79¼l., 80l.; Paris and Rouen, 17¼l., 8¼l.; South Eastern, 29l.—North and South Wales Bank, 6¼; Union, 16¼l.

BIRMINGHAM, THURSDAY.—London and Birmingham Railway, 218l. to 220l.; London and Brighton, 30l. to 30¼l.; London and South Western, 65l. to 66l.; Great Western, 88l. to 89l.; Birmingham & Derby, 61l. to 62l.; Birmingham & Gloucester, 52l. to 54l.; Manchester and Leeds, 81l. to 82l.; Edinburgh and Glasgow, 49l. to 50l.—Birmingham Banking Company, 14l.; District, 5l.; Midland, 3[illegible].—Birmingham Canal, 19[illegible]; Birmingham and Worcester, 54l. to 56l.; Birmingham Water Works, 20¼l.; Birmingham Gas, 11[illegible]; Birmingham and Staffordshire, 60l. to 6[illegible]; Old Union Mill, 5[illegible]; New ditto, 1¼l.

COAL MARKET, LONDON.

MONDAY.—Prices of coals per ton at the close of the market:—Adair's Main 15—Buddle's West Hartley 15 0—Carr's Hartley 15 0—Chester Main 14 0—Davison's West Hartley 15 0—Holburn Main 15 0—Hasting's Hartley 15 0—Holywell Main 15—New Holywell Main 15—New Tanfield 14—Old Tanfield 14—Carr's Roxburgh 15—Penny Bain's 15 0—Pontop Windsor 15—South Pontop 15 0—Taylor's West Hartley 15 0—West Pelton 15—West Hartley 15 0—West Wylam 14 6—Wylam 14 6—Byers and Co. 16 0—Clarke and Co. 16 0—Gosforth 16 0—Hilda 16 0—Hotspur 16 6—Killingworth 16—Bewicke 16 6—Northumberland 16 0—Braddyll's Hetton 16 6—East Hetton 16 0—Haswell 16 6—Hetton 16 and 16 6—Lambton 16—Russell's Hetton 16—Stewart's 17 0—Whitwell 17—Hartlepool 16—Adelaide 17 6—Bellington Tees 16—Brancepeth 16—Brown's Deanery 17—M'Lean's Tees 16—Richardson's Tees 16—South Durham 17—The Duke's 16 6—Tees 17 6—West Tees 16 6—Cowpen Hartley 16 0—Bennett's Garesfield Coke 24 0—Sidney's Hartley 15 6—[illegible] 16—Ships arrived, 146.

WEDNESDAY.—Adair's Main 15—Buddle's West Hartley 15—Carr's Hartley 15 6—Chester Main 15—Davison's West Hartley 15—Felling Hartley 15 0—Holburn Main 15 0—Hasting's Hartley 15 6—Holywell Main 16—Lawson's Main 15—New Holywell 15 6—Ridley's West Hartley 15—Old Tanfield 14 6—Ravensworth Main 15 6—Carr's Roxburgh 15—Penny Bain's 15—Ravensworth West Hartley 15 6—South Moor 15—Pontop 14 6—Primrose 15 6—Tanfield Moor Butts 15 6—Tanfield Moor 16 0—West Wylam 14 6—Wylam 14 6—Bewicke 16 6—Belmont 16—Gosforth 16 6—Hilton 15 6—Hilda 15 6—Hotspur 16 6—Killingworth 16—Newmarch Hetton 16 6—Northumberland 16 6—Belmont 17—Braddyll's Hetton 16 6—East Hetton 16 6—Haswell 16 6—Hetton 16—Lambton 16—Morrison 16—Pemberton 16 6—Russell's Hetton 16—Stewart's 16—Whitwell 17—Caradoc 16 6—Cassop 16—Hartlepool 16—Stewart's 16 6—Hough Hall 17 6—High Thornley 17—Eaton 16 6—Dinsdale's 17 6—Lambton 17 6—Seaham 16 6—Brown's Deanery 17—Clarence Hetton 16—Tees 17 6—Cowpen Hartley 15 6—Bennett's Garesfield Coke 24—Sidney's Hartley 15—Howard's West Hartley Netherton 15—Ships arrived, 10[illegible].

FRIDAY.—Adair's Main 15—Buddle's West Hartley 15—Carr's Hartley 15 6—Chester Main 15 0—Davison's West Hartley 15 0—Felling Hartley 15 6—Hasting's Hartley 15 0—Holywell Main 16—New Tanfield 15—Ridley's West Hartley 15 6—Taylor's West Hartley 15 6—Old Tanfield 14 6—Ravensworth Main 15 6—Carr's Roxburgh 15—Pontop Windsor 15—Pontop 15 6—Tanfield Moor Butts 15 6—Tanfield Moor 16 6—West Hartley 15 6—Wylam 14 6—West Rock Bewicke and Co. 17—Belmont 16 6—Clarence 16—Hotspur 16—Gosforth 17—Hotspur 15 6—Killingworth 16 0—Northumberland 16 6—Belmont 17 6—Braddyll's Hetton 16 6—East Hetton 17—Haswell 16—Hetton 16 6—Lambton 16 6—Morrison 16 6 and 16 6—Russell's Hetton 16—Stewart's 16 6—Caradoc 16 6—Cassop 16—Hartlepool 16 6—Seaham 16 6—Newmarch 16—Clarence Tees 17—Seymour Tees 17—South Durham 17—Tees 16—West Tees 17—Bridgewater's Tees 16—Cowpen Hartley 15 6—Howard's Netherton West Hartley 15 6—Sidney's Hartley 15 6—Ships arrived, 15.

SALE OF COPPER ORES IN CORNWALL.

Sampled Sept. 13, and Sold at Pearce's Hotel, Truro, Sept. 28.

Mines.	Tons.	Price.	Purchasers.	Mines.	Tons.	Price.	Purchasers.
Consols	133	£5 13 0	Freeman.	S. Caradon	87	£4 0 0	Vivians.
ditto	127	6 18 6	—	Wh. Jewel	87	5 2 0	Nevill & Co.
ditto	129	5 6 6	English Co.	ditto	76	5 0 6	—
ditto	91	5 3 6	Vivians.	ditto	66	4 18 6	—
ditto	86	7 1 6	Freeman.	ditto	26½	7 11 6	English Co.
ditto	86	4 16 6	Nevill & Co.	ditto	26½	7 11 6	Vivians.
ditto	88	4 12 6	English Co.	ditto	41	3 16 6	English Co.
ditto	73	4 11 6	Nevill & Co.	Fowey C.	111	5 5 6	Vivians.
ditto	32½	4 9 6	Crown Co.	ditto	100	3 6 6	—
ditto	32½	4 9 6	Williams.	ditto	73	6 1 6	—
ditto	60	6 13 6	English Co.	Hallenbeagle	88	4 5 6	Williams.
ditto	40	4 6 6	—	ditto	67	3 2 6	English Co.
ditto	33	1 16 6	Vivians.	ditto	52	2 6 6	Vivians.
ditto	29	3 10 0	—	ditto	23	1 8 6	—
ditto	15	1 15 6	—	E. Downs	92	3 13 6	Williams.
United M.	75	4 19 6	Crown Co.	ditto	35	4 1 0	Vivians.
ditto	75	4 10 6	Williams.	Treleigh C.	66	5 8 6	English Co.
ditto	122	5 19 6	—	ditto	21	8 6 0	—
ditto	110	6 1 6	—	ditto	21	8 6 0	Mines Royal
ditto	109	4 16 6	—	Wh. Vyvyan	60	1 16 6	Vivians.
ditto	108	5 5 6	—	ditto	36	6 15 6	Williams.
ditto	46	3 8 0	P. Grenfells.	ditto	1	37 0 6	Vivians.
ditto	46	3 8 0	Williams.	Wh. Ellen	27½	5 10 6	Mines Royal
ditto	86	4 18 6	—	ditto	27½	5 10 6	P. Grenfells.
ditto	78	5 7 6	—	ditto	27½	5 10 6	Nevill & Co.
ditto	75	3 16 6	—	ditto	8½	3 13 6	P. Grenfells.
S. Caradon	98	6 4 6	P. Grenfells.	ditto	8½	3 13 0	Nevill & Co.
ditto	41	5 14 6	English Co.	Tresavean	40	2 4 6	P. Grenfells.
ditto	41	5 14 6	P. Grenfells.	ditto	36	3 18 6	Nevill & Co.
ditto	77	6 14 6	—	Creegbraws	38	7 12 6	Freeman.
ditto	75	6 2 6	Vivians.	ditto	29	4 14 6	English Co.
ditto	27½	5 10 6	P. Grenfells.	ditto	11	4 19 0	Vivians
ditto	27½	5 19 6	Williams.	W. Comfort	19	4 1 0	Nevill & Co.

TOTAL PRODUCE.

Consolidated	1030	£5146 4 6	Treleigh Consols	108	£568 8 0
United Mines	926	4679 19 6	Wh. Vyvyan	102	401 16 0
South Caradon	424	2327 9 6	Wh. Ellen	106	520 12 6
West Wh. Jewel	317	1673 19 6	Tresavean	76	277 3 0
Fowey Consols	286	1712 16 6	Creegbraws	78	481 4 6
Hallenbeagle	230	869 15 0	Wh. Comfort	19	72 19 0
East Downs	127	477 11 0			

Average standard, 106l. 14s.—Average produce, 7¼.—Average price, 5l. 2s. 6d.—Quantity of ore, 3934 tons.—Quantity of fine copper, 283 tons 4 cwt.—Amount of money, 19,707l. 18s. 6d.—Average standard of last sale, 105l. 11s.—Average produce, 7¼.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal Company	49½	£317 3 2
English Copper Company	504½	2996 0 9
Vivian and Sons	777½	3673 7 3
Freeman and Co.	384	2650 2 6
Grenfell and Sons	265½	1391 9 6
Crown Copper Co.	105½	480 5 6
Sims, Willyams, Nevill, Druce, and Co.	473	2766 14 8
Williams, Foster, and Co.	1060	5383 3 0
Total	3624	£19,707 18 6

Copper ores for sale on Thursday next, at Serpell's Hotel, Pool.—Mines and Parcels.—East Wheal Crofty, &c., 553; South Wheal Basset, 418; Camborne Vean, &c., 411; Dolcoath, 354; Fowey Consols, 273; Par Consols, 269; Wheal Trewavas, 163; Wheal Harriet, 124; East Pool, 117; Tretoil, 167; North Roskear, 76; Wheal Penrose, 43; Tregoodwell, 7.—Total, 2914 tons.

Copper ores for sale on Thursday week, at Andrew's Hotel, Redruth.—Mines and Parcels.—Carn Brea Mines, 811; Wheal Friendship, 543; Wheal Virgin, 400; Botallack, 329; United Hills, 247; Fowey Consols, 239; Brewer, 235; Wheal Darlington, 170; Trenow Consols, 141; Wheal Busy, 128; Providence Mines, 120; Levant, 114; Trevaunance Consols, 32; Harvey's Ore, 44; Wheal Messer, 28; Martin's Ore, 23; Wheal Harmony, 10; Wheal Unity, 8.—Total, 2670 tons.

SALE OF COPPER ORES AT SWANSEA.

Copper ores for sale October 4.—Cobre 119, do. 98, do. 90, do. 76, do. 71, do. 20, do. 143, do. 67, do. 75, do. 61, do. 16—Knockmahon 119, do. 118, do. 109, do. 107, do. 105, do. 102, do. 62, do. 35—Santiago 124, do. 120, do. 111, do. 76, do. 104, do. 91, do. 60—Copiapo 100, do. 35, do. 33, do. 47—Bearhaven 129, do. 96, do. 73—Ballymurtagh 51, do. 50, do. 41, do. 40, do. 41—Cuba 90, do. 48, do. 47, do. 43—Chili 111, do. 19, do. 12—British Regulus 99, do. 37—Llandidno 101—Cosheen 69—Lackamore 33—Llanidloes 7, do. 5.—Total, 3890 tons.

SALE OF BLACK TIN,

By Ticket, on the 25th of September, at Marazion.

Mines.	Tons.	Price.	Amount.	Purchasers.
Wh. Mary	10	£30 1 6	£320 5 0	L. C. & W. Daubuz.
ditto	11	29 15 0	327 5 0	—
Levant	4¼	34 5 0	134 2 6	Bolithos and Co.
ditto	4½	34 5 0	154 2 6	Williams and Co.
ditto	1¾	34 10 0	60 7 6	—
ditto	1¾	34 10 0	60 7 6	Williams and Co.
ditto	2¼	33 15 0	80 7 6	L. C. & W. Daubuz. Bolithos and Co.
W. Friendship	6¼	36 5 0	235 11 6	Williams and Co. Trereife Co.
Perran Downs	1½	37 15 0	56 12 6	—

Total tons, 52—Amount, £1799 2s. 6d.

LATEST CURRENT PRICES OF METALS.

LONDON, SEPTEMBER 29, 1843.

		£ s. d.			£ s. d.
SPELTER—Foreign, ton	0 0 to 21	10 0	COPPER—Old	per lb.	0 0 9
— For delivery	0 0 0	—	— Cake p. ton	0 0 0 to 79	0 0
ZINC—English sheet	0 0 0 28	0 0	— For. cake	0 0 0 to	—
QUICKSILVER	per lb.	0 4 6	— Eng. tile	0 0 0 to 77	0 0
IRON—English bar, &c.	p. ton	5 5 0	TIN—English, blocks, &c.	cwt.	3 0 0
— Nail rods	0 0 0	0 0 0	— — bars	0 0 0	3 1 0
— Hoops	0 0 0	7 10 0	— Foreign, Banca	0 0 0	3 12 0
— Sheets	0 0 0	8 10 0	— — Straits	0 0 0	3 15 0
— Cargo in Wales	0 0 0	4 15 0	— — Peruvian	0 0 0	3 0 0
— Pig, No. 1, Wales	3 10 0	3 15 0	Tin plates, No. IC. p. box	1 3 6	1 7 0
— No. 1, Clyde	0 0 0	2 5 0	— — No. IX.	1 9 0	1 13 0
— For., Swedish	0 5 0	9 10 0	— wasters in. p. box less		
— Russian, CCND		15 10 0	LEAD—Sheet milled	p. ton	17 10 0
— — PSI		—	— Shot, patent	18 10 0	19 0 0
— — Gourieff		—	— Red		21 10 0
— — Archangel		—	— White		33 10 0
STEEL—Swedish keg	p. ton	15 10 0	PIG LEAD—English	0 0 0	16 10 0
— — Fagged	0 0 0	15 10 0	— Spanish	0 0 0	16 0 0
COPPER—English sheathing	lb.	0 0 9	— American	0 0 0	—

EXPORTATION OF THE PRECIOUS METALS.—The following are the official returns of the exports of gold and silver from the port of London for the week ending Thursday last:—

Silver bars to Rotterdam ...... 3,000 ounces.

[From the Midland Counties Herald of Thursday.]

In the market for metals prices do not materially advance, nor is there much real improvement in the iron districts of South Wales, where bar iron is only saleable on a limited scale at 4l. 12s. 6d. to 5l. 15s. per ton. In the Clyde pig iron is at the low price of 45s., and in Wales at 70s. to 75s. per ton.—British copper is dull at 79l. to 79l. per ton; and English tin at 61s., and Banca at 58s. per cwt.

[From the Wolverhampton Chronicle.]

THE IRON TRADE.—The demand for iron continues steady, and is, of course, operating beneficially to the workmen employed in its manufacture; it has also necessarily infused a little activity into the cauldrons of those ironstone getters and colliers who are fortunate enough to have employment; but the demand for their labour, even yet, is by no means sufficient to call into employment very many of the thousands of that class of workmen who were thrown out of work by the late cessation of demand for iron. As a consequence, many of the miners continue idle. The wages, too, still remain at the lowest point, for 2s. a day, in most cases, and for 2s. 6d. or 2s. 9d., in a few instances among the very best workmen, the miner has to perform twelve hours' dreary, heavy, and dangerous labour; and this, it must be observed, the nature of his employment precludes him from obtaining more than five days in the week. To all, then, it must be evident, that a much greater degree of activity in the iron trade must prevail before any thing like prosperity, or even comfort, can be generally diffused.—Subsequently to writing the above, we have heard that several ironmasters have expressed an intention, should the present price of iron be maintained, at the next quarter day to advance miners' wages. It will be a most just reward due to their adventurous labour, and we sincerely trust the gratifying report may prove well founded.

THE LONDON GAZETTE—BANKRUPTS.

TUESDAY.—J. F. Spence, St. James's street, Piccadilly, tailor—R. Parker, Depthford row, Kidderminster, linendraper—J. Burgess, Dunstable, Bedfordshire, tailor—H. W. Barber and J. Rose, Argyll street, Oxford street, tailors—J. Rhock, Leeds, linendraper—S. Canning, Warwick, victualler.

FRIDAY.—J. Smith, Weston Old Town, linendraper—J. W. and E. Gray, Bishop's Waltham, Southampton, corn dealers—C. Chambers, Peterborough, Northamptonshire, linen merchant—A. Worley, Long Buckby, Northamptonshire, baker—W. Stead, Billingshurst, Sussex, dealer and chapman—R. Kipling and W. Atkinson, Wood street, Cheapside, warehousemen—S. [illegible], linendraper—H. Watts, Bristol, saddler—J. S. Carson, Liverpool, merchant—J. Hill, Durham, grocer.

PRICES OF MINING SHARES.

BRITISH MINES.

Shares.	Company.	Paid.	Price
500	Anglesey	5	—
96	Bell	—	50
4,000	Bedford	2½	3¼
100	Botallack	175	350
20,000	British Iron	76	—
6,000	Blaenavon	50	4
128	Brewer	—	125
72	Bodmick	—	10
8,000	Con. Tretoil Mining Ass.	4	½ ¼
128	Cosheen	15	150
112	Charlestown	—	200
2,000	Cornubian Lead Co.	3	4¼
128	Comfort	—	25
512	Cook's Kitchen	—	45
1,000	Carn Brea	15	110
1,000	Callington	5	8
128	Caradon Consols	—	70
128	Cregg Braws	80	80
10,000	Durham County Coal Co.	37	—
100	Dolcoath	—	—
128	East Pool	—	200
180	East Wh. Crofty	—	—
128	East Wh. Rose	—	650
512	Fowey Consols	—	—
512	New Fowey Consols	40	35
100	Great Consols	97	550
244¼	Grambler & St. Aubyn	—	25
1,000	Godolphin	—	35
15,000	Galv. Iron & Wire Rope	10	—
10,000	Hibernian	12¼	2
1,000	Holmbush	14	37
128	Hallenbeagle	—	50
2,000	Isle of Sark (Guernsey)	15	—
160	Levant	—	450
128	Lanarth & Penstruthal	—	120
10,000	Mining Co. of Ireland	7	11
128	Mostyn Mines	100	—
240	Mark Valley	—	7¼
117	North Roskear	—	300
4,000	North Tamar Consols	¼	—
74	North Downs	—	—
3,000	Polberou Consols	10	¼
128	Par Consols	—	1200
128	Pen Park	29	—
10,000	Rhymney Iron	50	4
1,000	Roaring Water	¼	8
400	South Towan	10	1¼
57	Spearn Moor	70	—
1,000	Stray Park / Camborne Vean	40	25
61	South Wheal Basset	—	300
116	South Roskear	—	—
128	South Caradon	—	850
128	Speedwell	25	25
120	Trethellan	—	240

BRITISH MINES—*continued.*

Shares.	Company.	Paid.	Price
128	Trewarne	—	80
96	Tresavean	—	750
128	Tokenbury	—	30
120	Treviskey and Barrier	—	250
3,000	Treleigh Consols	3¼	2¼
6,000	Tamar Consols	2	6¼
6,000	Tincroft	7	13
128	Trewellard	12	25
4,000	United Hills	5	3¼
100	United Mines	—	900
6,000	Wicklow Copper	5	12¼
1,000	Wheal Bandon	¼	6
	Wheal Franco	15	35
1,000	West Carbery	5	12¼
128	Wheal Virgin	—	120
1,000	Wheal Agar	—	12¼
128	Wheal Speed	—	—
128	West Caradon	—	310
55	Wheal Vor	500	—
1,845	West Wheal Jewel	10¼	15
120	West Trethellan	5	60
1000	Wheal Harriet	¼	—
128	Wheal Penrose	—	50
128	Wheal Providence	16	100
68	Wheal Clifford	—	—
128	Wheal Albert	10	20
128	West Basset	10	35

FOREIGN MINES.

Shares.	Company.	Paid.	Price
5,000	Alten Mining Company	13¼	4¼
10,000	Anglo Mexican Co.	100	2¼
3,374	Do. Subscription	25	3
2,000	Bolanos	150	5
	Ditto Scrip	15	6
10,000	Brazilian Imperial	21	7¼
10,000	Bolivar	20	—
10,000	Ditto Scrip	10	2
10,000	Cata Branca—Brazilian Company	6¼	4 5
12,000	Cobre Copper Company	40	18
8,500	Colombian Co. regis.	55	1¼
10,000	Copiapo Mining Co.	13	13
20,000	General Mining Asso.	20	6
5,351	Mexican Company	39	—
12,000	Mocaubas and Cocaes	25	4¼
29,330	Rl. del Monte, regis. / Do. unregistered	29¼	4¼ / 5
	Ditto Red Debentures	—	19¼
	Ditto Black ditto	—	19¼
	Ditto Loan Notes	150	117¼
7,000	Royal Santiago	10	23
11,000	St. John d'el Rey	15	10¼
40,000	United Mexican	40	2¼
	Black Scrip, addl. capital	5	2¼
	Red New Scrip	1¼	2

RAILWAY SHARE LIST AND TRAFFIC RETURNS.

Line.	Entire Lgth.	Now Open.	Present actual cost.	Pd. on Share.	Val. of Share.	Last week's returns.
Arbroath and Forfar Railway	15	15	£136,705	25	25	£189 11 3¼
Birmingham & Derby Junc.	48¼	48¼	1,149,035	100	61	1561 1 9
Birmingham and Gloucester	55	55	1,470,730	100	55¼	2275 18 4
Brandling Junction	25	25	434,824	50	20	993 10 3
Chester and Birkenhead	14¼	14¼	538,424	50	20	323 10 9
Dublin and Kingstown	6	6	340,267	100	107	999 4 0
Dundee and Arbroath	16¼	16¼	155,000	25	15¼	250 7 11¼
Durham and Sunderland	16	16	266,132	50¼	18	622 0 5
Eastern Counties*	51	51	2,737,816	23	8	2960 1 3
Edinburgh and Glasgow	46	46	1,369,367	50	50	2879 6 1
Glasgow and Ayr	51	51	980,394	50	40	1384 9 5
Glasgow and Greenock	22¼	22¼	730,290	25	25	1000 6 10
Gd. Junc. & Chester & Crewe	113¼	113¼	2,373,135	100	202	6825 19 0
Great North of England	74	45	1,280,614	100	70	1347 0 10
Great Western	118¼	118¼	6,851,928	65	88¼	13329 9 1
Hull and Selby	31	31	642,326	50	42	1041 2 2
Liverpool and Manchester	31	31	1,515,255	100	200	4274 11 2
London and Birmingham	112¼	112¼	5,353,831	100	218	17830 14 9
London and Blackwall	3¼	3¼	1,200,081	16¼	4¼	1049 13 10
London and Brighton	56	56	2,636,946	50	30¼	5344 19 3
London and Croydon	10¼	10¼	626,471	18¼	11¼	336 5 6¼
London and Greenwich	3¼	3¼	1,019,626	12¼	4¼	923 7 10
London and South Western	92¼	92¼	2,385,924	50¼	65	6934 19 3¼
Manchester, Bolton, & Bury	10	10	777,357	50	36	738 17 0
Manchester & Birmingham	40	31	1,838,406	40	29¼	3316 1 10
Manchester and Leeds	50	50	3,080,296	70	81¼	5109 4 3
Midland Counties	57	57	1,728,033	100	80	3660 4 3
Newcastle and Carlisle	61	61	1,061,300	100	76	1370 13 4
Newcastle and N. Shields	7	7	252,079	45	44	449 13 8
Northern and Eastern†	32¼	32¼	914,094	45	20	1781 0 8
North Midland	72¼	72¼	3,341,700	100	82	4707 18 9
North Union‡	22	22	613,119	75	71	1467 13 8
Paris and Rouen	—	84	1,120,000	20	28	5454 0 0
Paris and Orleans	—	82	2,083,500	10	29¼	6298 0 0
Preston and Wyre	15	19	317,050	50	36	446 5 9
Sheffield and Manchester	40	11	612,804	82¼	32¼	578 6 7
South Eastern	87	87	2,336,322	50	28	4809 13 3
Taff Vale	30	30	583,941	100	—	899 14 9
Ulster	25	24	244,652	35	—	454 3 9
York and North Midland	37	37	473,656	50	103	1790 0 0

* Including Northern and Eastern Railway toll. † Rent and toll to Eastern Counties (about 160l. per week) included in the returns. ‡ The Liverpool and Manchester toll is deducted.

THAMES TUNNEL.

The number of passengers who passed through the Tunnel in the week ending September 23, was 14,082, yielding a revenue of £141 0s. 2d.

MISCELLANEOUS.

Shares.	Company.	Paid.	Price	Shares.	Company.	Paid.	Price
10,000	Anglo-Mexican Mint	10	12¼	100,000	Iberian Mercantile Co	—	1¼ 2
10,000	Anti Dry-Rot	16¼	2	1,200	London Corn Exch.	37¼	35
10,000	Asphalte (Claridge)	4	¼	6,000	London Cemetery (?)	12¼	15
10,000	Assam Tea Company	12¼	4¼	3,000	London Cemetery	20	18
10,000	Austral. Agricultural	26¼	15¼	8,100	Lon. Rever. Int. Soc.	17	17
3,750	Australian Trust Co.	35	30¼	10,000	London Wood Paving	2	2¼
12,500	Bitumen Bastenne	3¼	¼	15,000	Met. Pat. Wood Paving	6	6
10,000	Ditto Polonceau	2	¼		Mexican & S. American	7	4¼
6,000	Brit. Amer. Land Co.	33¼	9	20,000	New Brunswick (Ld.)	75	19
4,000	Brit. Loan & Dis. Inst.	2¼	2¼	6,082	Peninsular & Oriental	30	55
4,000	Brit. Rock & Pat. Salt	35	12	3,387	Rever. Int. Society	100	104
8,915	Canada Land Co.	32¼	41	15,000	Royal Mail Steam Pct.	60	12
3,000	Droitwich Patent Salt	25	14¼	2,000	Shott's Iron Foundry	44	36
2,700	Equitable Rever. Soc.	65	61	14,400	South Australian	20	17
20,000	Gen. Steam Navig.	14	28	3,000	Ship Owners' Towing	7¼	3¼
5,000	Gen. Rever. Int. Soc.	100	101¼	14,000	Thames Tunnel	50	3¼
3,100	Hungerford Market	100	31¼	10,000	Van Dieman's Land	20	8

JOINT-STOCK BANKS.

Shares.	Company.	Paid.	Price	Shares.	Company.	Paid.	Price
15,000	Agricul. & Com. of Ird.	10	—	60,000	London Joint-Stock	10	11¼
15,000	Australasia	40	50	—	Metropolitan	7¼	—
	Ditto, New	40	—	20,000	Provincial of Ireland	25	40¼
20,000	British N. American	50	38¼		Ditto, New	10	—
	Ditto, New	10	—	4,000	National of Ireland	17¼	14
5,000	Ceylon	10	—	10,000	Natl. Provl. England	35	35
1,000	Commer. of London	200	143		Ditto, New	10	—
20,000	Colonial	25	14¼	22,500	Union of Australia	25	27¼
4,000	Ionian	25	21	12,000	Ditto	5¼	—
50,000	London & Westminst.	20	23¼	60,000	Union of London	10	9¼

CURRENT PRICES OF MATERIALS IN CORNWALL,

AS SUPPLIED AT THE PRINCIPAL MINES.

Common iron, per cwt.	3s 3d		Barrow bends	7s	6d
Half-inch square	6	0	Sheet lead	22	0
Five-eighth ditto	7	6	White ground lead	25	0
Best tough whim chain	30	0	Red lead	18	0
Boiler plates	9	0	Tallow	40	0
Whim kibble ditto	13	0	Candles, per dozen lbs.	5	0
Hoop iron	8	0	Gunpowder, per 100 lbs.	40	0
Best rolled iron	6	0	Leather bands, per lb.	1	0
Charcoal iron	13	0	Ropes	28	0
Inch ditto	11	0	Flat ropes	30	0
Half-inch ditto	12	0	Hemp	40	0
Blistered steel	30	0	White yarn, per cwt.	36	0
B. I. steel	30	0	White rope	38	0
Nail rods	11	0	Engine slag	4	0
Miners' shovels	31	0	Stockholm tar	28	0
Ditto steel pointed	30	0	Linseed oil, per gallon	3	0
Board nails	16	0	Rape ditto	4	0
Half-board ditto	16	0	Brass wire sieves	40	0
Hatch ditto	17	0	Iron-wire ditto	30	0
Half-hatch ditto	21	0	Iron-wire work, per foot	1	0
2s. nails	16	0	Machine bellmen	10	0
Five-inch spike ditto	12	0	Sack	1	0
Casing ditto	20	0	Birch, per foot	1	0
20 lbs. nails	26	0	Pine	45	0
14 ditto	16	0	Shovel hilts	2	0
Coals, per ton, at quay	9	0	Pick hilts	1	6

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